TABLE OF CONTENTS

Vol. 31 THE OIL AND GAS JOURNAL, January 12, 1933 No. 34

Special Articles

Crude Oil Price Cutters Are Largely Responsible for Present Uncertainty in the Oil Business ---- 7
By ANDREW M. ROWLEY

Low Priced Crude Has Not Caused Higher Refining Schedules in Mid-Continent ---- 8
By W. T. ZIEGENHAIN

East Texas Situation as Seen by A.P.I. President ---- 9
By JUDGE C. B. AMES

Texas Oil and Gas Association Annual Meeting ---- 9

Layout Charts for Pipe Cutting and Welding ---- 10
By W. A. STOVER

Cleaning and Reconditioning Old Wells ---- 11
By L. G. E. BIGNELL

Report of A.P.I. Committee on Production Practice ---- 11

New Order Corrects East Texas Allowable ---- 12

Safety Program Cuts Out Banquet and Oratory But Gets Results ---- 13
By THOMAS F. SMILEY

High Quality Motor Fuel and Other Products From Shale Oils ---- 14
By GUSTAV EGLOFF and B. F. NELSON

French Refiners Handicapped by Limited Market for Fuel Oil, Gas and Coke ---- 16
By F. T. KAPCEVITCH

A Neglected Market (Editorial) ---- 18

Bureau of Mines Report for November ---- 34-36

Field Operations in December ---- 36

Field Problems From Readers ---- 75
Edited by THOMAS F. SMILEY

Field Operations

Late Fields ---- 32

East Texas ---- 37-38
By L. E. BREDBERG

West and North Texas ---- 39
By L. E. BREDBERG

Oklahoma ---- 44-46
By W. A. SPINNEY

New York and Pennsylvania Gas Fields ---- 46

Kansas ---- 47
By W. A. SPINNEY

North Louisiana-Arkansas, Mississippi ---- 48
By D. H. BANCROFT

Rocky Mountain Area ---- 50
By TOLBERT R. INGRAM

Canada ---- 50
By VICTOR LAURISTON

Gulf Coast ---- 54
By NEIL WILLIAMS

Michigan ---- 55
By GEORGE A. WHITNEY

California ---- 56
By L. P. STOCKMAN

Southwest Texas ---- 59
By B. D. STEVENSON

Central West ---- 60
By GEORGE A. WHITNEY

Eastern Fields ---- 60
By STAFF CORRESPONDENT

Refining and Marketing

Price Reductions in Oklahoma Market Include Kerosene, Distillate, Fuels and Gasoline ---- 20-21
By C. O. WILLSON

A.P.I. Refinery Report ---- 21

Chicago Market ---- 22
By R. C. CONINE

New York Market ---- 23
By A. E. MOCKLER

Exports and Imports ---- 23

Refinery and Crude Prices ---- 24-25

Tank Wagon Markets ---- 26

News for Sales Departments ---- 27

New Jersey Company Starts Burning Oil Campaign ---- 28

News for Petroleum Refiners ---- 28

Natural Gasoline Manufacture ---- 29

Technical Questions Answered ---- 76
By C. K. FRANCIS, Ph.D.

General Departments

New and Improved Equipment ---- 70

Market Record of Oil Securities ---- 70-71

Personal Paragraphs ---- 72

Natural Gas Developments ---- 74

Crude Petroleum Statistics ---- 78

Classified Advertising ---- 79

Index to Advertisers ---- 80

Refinery Section Starts on Page 20

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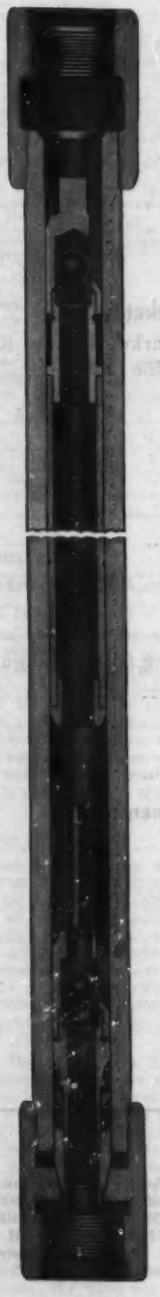

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Crude Oil Price Cutters Are Largely Responsible for Present Uncertainty in the Oil Business

By ANDREW M. ROWLEY

UNCERTAINTY regarding the price structures, which has been the principal handicap to settled conditions in the oil business in recent months, has been intensified as a result of quantities of crude oil in Texas and Oklahoma moving to markets under regularly posted prices. Offers of other quantities of cheap crude have been made to the larger buyers although few, if any, of these offers have been accepted as the larger companies feel such crude oil may have been or may be produced illegally or in excess of allowables of state authorities.

It is reported approximately 50,000 barrels daily of crude oil is being sold in East Texas at prices ranging from 25 to 40 cents a barrel. This crude is being made into gasoline and, as a result of the low prices of the raw material, gasoline is being sold in East Texas by refiners for two cents a gallon. In other areas the gasoline market is weakened by cut prices quoted for a product made from crude oil purchased at prices below the schedules of the major buyers. This weakness is being reflected in the crude oil price situation.

This uncertainty, due to price cutting and to producing in excess of allowables, has caused considerable discussion about the feasibility of continuing proration. In fact many operators state frankly they feel the time has come when proration should be discontinued as a policy of the petroleum industry.

Much of this talk may be a reflection of the attitude so prevalent that a change, no matter what it is, is desirable. The larger companies, probably, could not be blamed if they removed their support from the policy of proration. No fair-minded person can controvert the fact much of the trouble, due to production in excess of allowables, cut prices, and legal actions, has been caused by the smaller units in the business. But, if proration is abandoned or further weakened, there is no doubt whatever the greatest suffering will come to these smaller companies which are not in a position to withstand a long period of distress prices such as most certainly would come from a breaking down of proration with its resultant overproduction.

The viewpoint of the price cutter always is hard to understand, unless the product he sells is produced illegally. The industry knows there will be an increased demand early this spring. Why producers and refiners cannot sit tight in the boat for the next two months and be ready to take advantage of this better demand, with improved prices, is a mystery.

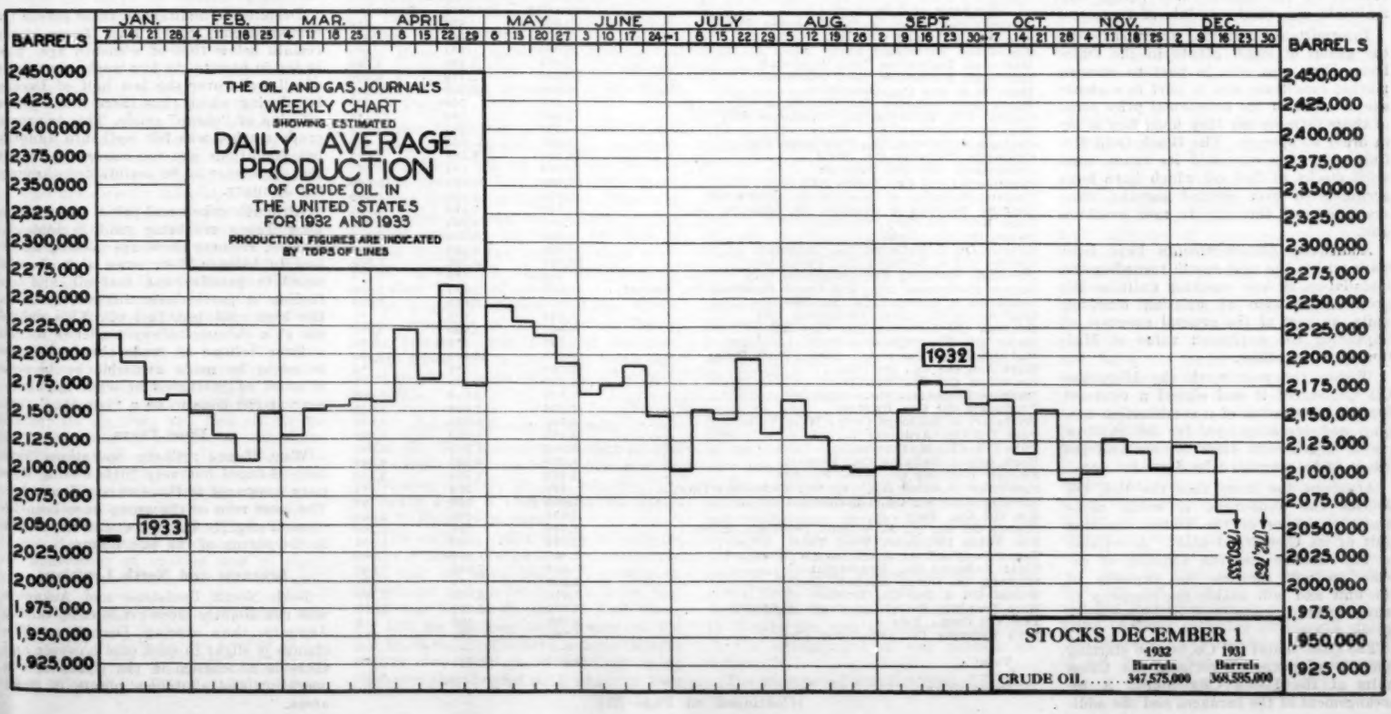
Crude Oil Production in the United States

Estimated daily average production for the week ending January 7 and a comparison with previous week and one year ago, follows:

	Jan. 7	Dec. 31	Jan. 9, 1932
Oklahoma—			
Oklahoma City	94,215	61,550	144,730
Seminole-St. Louis	110,920	99,995	122,915
Remainder of State	194,405	195,350	213,470
Total Oklahoma	399,540	356,895	481,115
East Texas—			
Lathrop	118,325	(*)	110,580
Kilgore	85,432	(*)	108,129
Joiner	96,115	(*)	110,818
Total East Texas	299,872	(*)	329,527
West Texas	156,037	162,055	173,088
North Central Texas	72,045	72,035	70,453
Texas Panhandle	42,452	47,754	51,641
East Central Texas	49,228	51,010	51,610
Gulf Coast—Texas	127,062	130,015	106,403
Southwest Texas	57,195	55,823	58,056
Total State of Texas	803,891	518,692	840,778
Kansas	88,935	89,840	100,935
North Louisiana	29,210	29,225	29,210
Gulf Coast—Louisiana	34,735	33,165	26,361
Arkansas	32,245	32,800	34,255
Eastern Fields	116,000	116,000	122,000
Rocky Mountain area	66,311	65,148	84,804
California—			
Santa Fe Springs	55,250	55,000	64,000
Long Beach	68,500	70,500	77,000
Playa Del Rey	13,000	13,000	20,750
Elwood	13,250	13,500	16,500
Kettleman Hills	59,500	59,500	61,500
Remainder of State	259,000	259,500	260,250
Total California	468,500	471,000	500,000
Total United States	2,039,367	1,712,765	2,219,458

*Fields shut in.

Increase, 326,602 bbls. daily.



Low Priced Crude Has Not Caused Refiners in Mid-Continent to Adopt Higher Schedules

By W. T. ZIEGENHAIN

Reduced crude prices have not proved to be an incentive for Mid-Continent refiners to increase their runs during January, according to estimates submitted by these companies on the first of the month. This group will reduce operations instead. This is further evidence that the day of refining crude simply because it is cheap is definitely past and operations are to be based upon the ability of the refined oil market to absorb the finished products.

In January Mid-Continent plants will process a total of 399,405 bbls. of crude daily and this is 16,870 bbls. less than the schedules established for December.

Except for small increases in the total crude runs of those plants in West Texas, Arkansas and North Louisiana, operations have been generally curtailed. Oklahoma and East Texas have each reported substantial reductions in crude runs while small decreases are reported for Kansas and North Central Texas.

Kansas

Kansas also contributed to the program of curtailing crude runs despite one new plant has been added to the list. This is the Dickey Refining Co.'s plant at McPherson which started up in the middle of December. Although the plant has a capacity of 5,000 bbls. per day it is running at the rate of about 1,000 bbls. The new plant of the Globe Oil & Refining Co., is also nearing completion and all major equipment is in place

Oklahoma

Oklahoma refiners will run an average of 128,550 bbls. of crude daily during January compared with a schedule of 137,700 bbls. in December. This decrease of approximately 9,000 bbls. is accounted for by a number of plants curtailing runs but the largest factor is the shutting down of the two Oklahoma plants of Barnsdall Refineries, Inc., which will remain idle until January 15. Over the balance of the month these plants will maintain a normal schedule of runs.

Intermittent operations are reported by the group of small plants in the Oklahoma City area due in part to adverse market conditions and in part to a shortage of crude at the subnormal price some of these refiners say they must buy it for in order to operate. The Black Gold Refining Co. has curtailed its crude runs until stocks of fuel oil which have been accumulated over several months' time are processed through its new cracking unit.

Additional announcements have been made within the past month regarding the installation of new cracking units or the proposed revision of existing cracking units, as part of the general program of improving the antiknock value of Mid-Continent gasolines.

Within the past week the Marathon Oil Co. stated it had signed a contract for the installation of a combination topping and cracking unit for its Bristow plant. Work is to start at once and the job is to be completed by June 1.

At about the same time the Bell Oil & Gas Co. announced it would make major revisions of the Dubbs cracking unit at its Grandfield plant. A revision of the furnace and the addition of exchangers will increase the capacity of the unit and will enable the company to manufacture a motor fuel of higher antiknock value.

The Continental Oil Co. is also starting upon a program of revising its Cross units at the Ponca City plant. A rearrangement of the furnaces and the addition of high pressure exchangers will permit more intensive cracking conditions and the resulting motor fuel will be of a higher antiknock value.

The Mid-Continent Petroleum Corp. is progressing rapidly now with the erection of what will be the largest cracking unit in the Mid-Continent area at least. The major parts of the unit are in place and completion of the unit is expected within the next two months.

North Central Texas

The North Central Texas group of refineries also showed a substantial drop in the total crude runs for January. This month the daily average is shown as 84,665 bbls., which compares with 88,335 bbls. a month ago. Of this decrease, 3,000 bbls. is accounted for by the fact the Taxman Refining Co. has temporarily suspended operations. Except for the shutting down of this plant and the temporary shutting down of the Atlantic, Pacific & Gulf Co. plant at Wichita Falls, there are no changes in the staus of the list of operating and idle refineries in this area.

East Texas

Seven more plants have been added to the list of East Texas refineries. These plants are all small and their combined runs for January will approximate only 550 bbls. daily, but the increase in the capacity of the already overbuilt refining facilities in this area further aggravates the refined oil market in the Mid-Continent. Included in the new group are the Canyon Refining Co. which is building a 200-bbl. skimming plant near Kilgore, R. X. Cook, who is operating a 200-bbl. plant at Gladewater, the Gregg Refining Co. which is operating a 300-bbl. skimming plant at Gladewater, the Locke Refining Co. which is operating a 200-bbl. skimmer at Gladewater, the Roland Refining Co. which now has a 200-bbl. skimming unit under construction at Arp, the Shoreline Refining Co. which has its 300-bbl. plant at Kilgore temporarily shut down and the Trinity Refining Co. which operates a 350-bbl. skimming plant at Gladewater.

Although seven more plants have been added to the list which brings the total in East Texas to 32, a large portion of them are idle part of the time. In the past week the Gladetex Refining suspended operations over the balance of the winter and at least 10 others will be idle or continue operating on an intermittent basis during January. This condition will be obtained only, however, should the orderly production program be maintained through proration.

Despite the addition of these plants the combined runs of all East Texas plants remain below that of a month ago. This is due in part to the two weeks shut down of all wells over the last half of December during which time there was a lesser offering of "cheap" crude. This improved crude market was felt well into January but conditions are too uncertain to say that it is sure to be maintained throughout January.

Although subnormal prices for crude in East Texas are being paid in some instances, refiners there are making an effort to balance their runs with the demand to gasoline and fuel oil, and are finding it particularly difficult to move the high cold test fuel oil. This should act as a damper to any tendency to run a large volume of crude simply because it might be made available or because it could be purchased at what might appear at the time to be a "bargain."

West Texas

West Texas refinery operations have been changed but very little during January compared to those during December. The total runs of the group have been increased slightly but there was no change in the statue of the idle plants.

Arkansas and North Louisiana

Both North Louisiana and Arkansas will run slightly more crude daily during January than during December. The change is slight in each case however and there is no change in the status of the operating and shutdown plants in these areas.

Mid-Continent Refinery Operations

Crude Runs to Stills

	1929	1930	1931	1932	1933
January 1	508,550	535,460	478,795	405,910	399,405
February 1	506,800	519,355	470,125	411,280	.....
March 1	514,950	531,500	449,634	401,155	.....
April 1	530,530	555,250	497,391	419,750	.....
May 1	577,500	574,300	510,640	436,160	.....
June 1	583,030	572,250	567,915	440,765	.....
July 1	565,800	548,475	588,840	433,255	.....
August 1	555,250	526,400	590,545	427,710	.....
September 1	552,300	498,710	588,105	430,430	.....
October 1	544,720	518,800	472,190	401,995	.....
November 1	545,473	506,700	480,440	408,180	.....
December 1	540,630	478,360	456,525	416,275	.....

Operations by Districts

	January Dy. crude capacity (bbls.)	January Dy. crude runs (bbls.)	Dec. Dy. crude runs (bbls.)	Jan. daily decrease (bbls.)
Arkansas	48,000	20,300	18,800	*1,500
Kansas	161,500	75,000	77,600	2,600
North Louisiana	41,000	26,750	24,950	*1,800
Oklahoma	309,900	128,550	137,700	9,150
North Central Texas	215,400	84,665	88,335	3,670
West Texas	144,100	39,620	38,145	*1,475
East Texas	84,850	24,520	30,745	6,225
Total	1,004,750	399,405	416,275	16,870

*Increase.

REFINERY OPERATIONS IN OKLAHOMA

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Altitude Petroleum Corp., Oklahoma City	3,000	600	600
Anderson-Prichard Oil Corp., Cyril	5,000	3,500	3,900
Associated Petroleum Corp., Allen	5,000	(*)	(*)
Barnsdall Refineries, Inc., Barnsdall	6,000	1,800	4,000
Barnsdall Refineries, Inc., Okmulgee	10,000	2,700	6,000
Bell Oil & Gas Co., Grandfield	4,500	2,000	2,200
Black Gold Refining Co., Oklahoma City	1,500	100	700
Capital City Refining Co., Oklahoma City	2,500	600	(*)
Century Petroleum Co., Tulsa	500	(*)	(*)
Century Petroleum Co., Oklahoma City	2,500	650	450
Champlin Refining Co., Enid	16,000	6,500	7,000
Continental Oil Co., Sapulpa	10,000	(*)	(*)
Continental Oil Co., Ponca City	30,000	10,500	10,500
Cushing Refining & Gasoline Co., Blackwell	1,800	1,500	1,500
Cushing Refining & Gasoline Co., Cushing	3,500	2,500	2,500
Deep Rock Oil Corp., Cushing	10,000	10,000	10,000
Eason Oil Co., Enid	5,000	2,500	2,600
Empire Oil & Refining Co., Okmulgee	4,000	2,300	2,300
Empire Oil & Refining Co., Ponca City	12,000	6,300	7,000
Firestone Refining Co., Oklahoma City	200	(*)	(*)
Garber Refineries, Inc., and Omar Refining Co., Garber	3,500	(*)	1,200
Globe Oil & Refining Co., Blackwell	7,500	5,000	5,000
Gulf States Oil Corp., Oklahoma City	2,500	(*)	(*)
Johnson Oil Refining Co., Cleveland	6,000	3,000	4,000
Major Oil Co., Oklahoma City	2,000	(*)	(*)
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	17,000
Marathon Oil Co., Boynton	2,500	(*)	(*)
Marathon Oil Co., Bristow	5,000	(*)	(*)
Phillips Petroleum Co., Okmulgee	5,000	3,500	3,500
Producers Oil Co., Bristow	2,500	1,000	1,000
Producers & Refiners Corp., West Tulsa	6,000	3,000	3,000
Pure Oil Co., Ardmore	5,000	1,200	1,200
Pure Oil Co., Muskogee	9,000	7,000	7,000
Rock Island Refining Co., Beckett	5,000	4,000	4,900
Sinclair Refining Co., Sand Springs	8,000	2,300	2,300
Speedway Gasoline Refining Co., Oklahoma City	400	200	(*)
Sterling Refining Co., Oklahoma City	2,000	800	700
Sun Oil Co., Yale	5,000	2,000	2,500
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	1,000	1,200
The Texas Company, West Tulsa	15,000	9,000	9,000
Texas Pacific Coal & Oil Co., Wynnewood	3,000	1,000	1,500
Tidal Refining Co., Drumright	15,000	7,000	7,000
Western Oil Corp., Beckett	2,000	(*)	(*)
Wilcox Oil & Gas Co., Bristow	5,000	3,000	2,300
Wirt Franklin Petroleum Corp., Ardmore	4,000	2,200	1,800
Yale Oil Corp., Yale	2,000	300	350
York Refining Co., Oklahoma City	3,000	(*)	(*)
Total	369,900	128,550	137,700

*Shut down.

(Continued on Page 33)

East Texas Situation as Seen by President Ames Put Before Texas Oil and Gas Association

By C. B. AMES
President, American Petroleum Institute*

It is a pleasure to speak to your association on this subject. For a long time you have been leading the effort in Texas to develop a sound conservation program, and your efforts have been rewarded by the recent laws passed by the legislature and orders made by the Railroad Commission. You have a right to feel proud of your achievements, and yet there are none who know better than you that it is necessary to keep the machinery in constant motion and properly functioning in order for the conservation program to become a realized fact. Notwithstanding your knowledge of, and interest in the subject, therefore, it may not be amiss at this time to consider with you the principles involved in the application of such a program.

The first thing to be steadily borne in mind is that conservation laws enacted by the legislature and enforced by the Railroad Commission, are not designed to aid any particular group, but are designed to aid and protect the public at large. This State has a very large stake in the petroleum industry. It produces more crude oil than any other state in the union. While there are about 20 oil producing states, Texas produces between 35 and 40 per cent of the total. We hear a great deal about the menace of increasing production in Venezuela, in Rumania and in Russia, and yet Texas produces more crude than any two of those countries combined. The East Texas Pool alone produces twice as much oil as Rumania, and about as much as the whole of Venezuela. Texas is the greatest of our cotton producing states, its production being about as much as that of any other three states, and yet the value of her crude oil production is more than twice the value of her cotton crop. Many of the towns and cities of this State are intimately connected with the petroleum industry, and its collapse would cause serious suffering to their banks, their merchants and their people at large. I am told that more than half of the revenues of the State are derived from taxation of petroleum and its products.

Texas Legislation

Naturally, the people of Texas wish to see this industry continue to exist over a long period of years and to be prosperous so long as it exists. The conservation laws which have been passed by this State, therefore, rest upon and are justified by the public welfare, and those of us who are directly interested in the industry must always remember that there is a wide horizon beyond our particular welfare, which must be scanned by the lawmakers in search of the public interest as a whole. There is, however, in addition to this, a consideration going beyond the borders of any one state which appeals to them all for conservation, and that is the interest of the nation as a whole. Petroleum has come to be a necessity in the every-day life of the world. The Government must have gasoline and lubricating oils for its air fleet and fuel oil for its navy. It would be possible to substitute coal for the fuel oil, but it would not be possible to substitute coal for use on the aircraft. President Coolidge recognized this national necessity as the justification for creating the Federal Oil Conservation Board, and in so doing stated that the supremacy of nations may at times rest upon a petroleum supply. Our railways, our factories of all kinds, and our 25,000,000 motor vehicles, are daily consumers of petroleum products. A 24-hour cessation of petroleum supplies would cause incalculable injury to the country. It is therefore of vital importance to the nation as a whole that we have a steady stream of petroleum supply, and that it last as long as possible. We have in sight today approximately 13,000,000,000 bbls. of crude in proven pools. We are consuming approximately 800,000,000 bbls. per annum, and therefore, our known supply, on the present basis of consumption, is sufficient for about 16 years.

Every barrel consumed is a barrel deducted from the total stock. Our oil deposits are irreplaceable, and being irreplaceable should be carefully used. Of course, we are going to discover more oil fields and our oil supply is not going to be exhausted in 16 years. We need not be alarmed on this score, but the fact remains that petroleum is a necessity; that the supply is exhaustible and irreplaceable, and therefore, that there is a profound public interest underlying and supporting the conservation laws of the various states.

Control of Production

Notwithstanding the gradual development of a conservation program during the past 40 or 50 years, we still hear an occasional protest against any control. We still hear a lonely voice advocating repeal of all legislation on the subject in order that nature may take its course and that the fittest may survive. While that position is not supported by any argument and has been exploded a thousand times, it may be well, as we are analyzing the subject, to inquire briefly what would be the effect if all control should be abandoned. The producing capacity of the United States is far in excess of the consuming requirements. East Texas or Oklahoma City alone has the capacity to produce each day more than the United States consumes. The producing capacity being several times the consuming requirements, if there were no restraint on production the result would be an enormous overproduction, resulting in terrific waste and in complete collapse of the price structure.

Let us take East Texas as a concrete illustration. Many other pools would furnish a like illustration and East Texas is merely used as a type. In that pool we have the small producer who is without refinery connections, the landowner who is interested in his royalty, and the interested companies which have their own production, their own pipe lines, their own refineries, and their own marketing outlets. These integrated companies are now the purchasers. They purchase from others because they cannot produce their own wells unrestrained, and therefore need the oil produced by others. If there were no restraint on production, they could produce all of their requirements and more from their own wells, and would be under no legal obligation to purchase from others. They probably have 100,000,000 to 150,000,000 bbls. of empty storage located on their pipe lines. If, therefore, all restraint should be abandoned, the small producer would have no market at all for his oil.

The royalty owner, instead of receiving one-eighth of 75 cents, with the prospect of more, would be receiving one-eighth of 10 cents or 5 cents, with the prospect of even less, and the integrated companies would be draining the field until their storage capacity was exhausted, but, while they were doing so, they would be selling their products on a 5-cent basis and losing in their marketing operations every penny that they might make out of the production of cheap oil. The local banks which have loaned money on the basis of 75-cent oil might find the borrowers unable to pay with 10-cent oil. The oil trade of the local merchants would be brought to a standstill. The revenues of the State derived from the gross production tax would be cut to pieces, making it necessary to supply revenue by increasing ad valorem taxes. The aban-

(Continued on Page 30)

*Delivered at first annual meeting of the Texas Oil and Gas Conservation Association, Fort Worth, Tex., January 9, by Fisher Ames owing to the illness of Judge Ames.

First Annual Meeting of the Texas Oil and Gas Association Is Held at Fort Worth, Texas

By L. E. BREDBERG

FORT WORTH, Tex., Jan. 9.—The first annual meeting of the Texas Oil and Gas Association drew approximately 200 independent operators and company representatives together in the Blackstone Hotel this morning to discuss various problems which confronted the oil industry in Texas, especially in the East Texas Field.

Charles F. Roeser, president of the association and chairman of the meeting, declared there was no basis for the rumors of the past few weeks that proration was nearing a breakdown. He said that production was now within market demand and that sentiment for such a market demand was stronger than ever. Public opinion, he stated, is helping to cure East Texas of its ills.

The prepared address of Judge C. B. Ames, president of the American Petroleum Institute was read by his son, Fisher Ames, due to the judge being confined to his home in Oklahoma City from larnygitis.

Colonel Thompson Speaks

Col. E. O. Thompson, member of the Texas Railroad Commission, delivered an interesting address on the subject, "Oil in Texas From a Commissioner's Viewpoint." He said in part:

"The oil laws under which we operate in the State of Texas are comparatively new, and we have had of necessity to experiment quite a bit in finding out just what was best to do. In the first place, we had an entirely new theory of the law to learn. People have so long thought that it was their proud privilege to do whatever they desired with whatever they owned that it is hard and has been hard to get them to understand that this right to do as one pleases with one's property carries with it the correlative duty to use one's property in the exercise of this right in such a way only as to do no violence to the rights of others.

"In the old days under the gold rush methods when oil was discovered there was a great rush to the field, and the drilling campaign was on. Whoever got his bit into the flowing gold first took all he could in such a way that in a very short time there was little left for anybody. Engineers and those who know tell us on the commission that under these old haphazard methods of production of petroleum that we have seen in the flush days of Texas that perhaps not more than 20 per cent of the recoverable oil was ever brought to the surface with a resulting loss of perhaps 80 per cent of this great natural resource incurring to the State and everybody.

"When the first conservation laws were passed in Texas it was with the idea that this loss to the people of Texas would be prevented so far as possible. It is now pretty well understood by everyone in the oil business that there are certain principles which, if followed carefully in the production of oil, will permit the bringing to the surface of the earth for the use of mankind some 80 to 90 per cent of the total recoverable oil in any given pool. This is certainly sufficient testimonial for any fair-minded person to justify the use of scientific methods in the development of our natural resources."

The widespread ramifications and many evils of gasoline tax evasion were described by Clarence Kendall, of Houston, attorney for the Texas Gasoline Tax Evasion Committee. He showed clearly lower crude oil prices resulted from the action of gasoline tax evaders in cutting gasoline prices. He spoke in part as follows:

Proration and Tax Evasion Problems

"For some time, the two burning problems of the oil industry have been proration and tax evasion. Both of these problems have resulted from an excess—one of oil, the other of tax ratios. To deal with one of these problems is the reason you formed this conservation association, and your task is necessarily a difficult one, because, the factors entering into the necessity for conservation are less controlled, and in some respects, can never be controlled. In conservation, you have the major factors of supply, demand, property rights and the law in general; yet, you have by united effort accomplished remarkable and profitable results. This other problem, tax evasion, is essentially different in its character. It can be absolutely controlled. The same agency that brought it into being, can destroy its existence. There is nothing peculiar about tax evasion, but there is something about all kinds of taxes and tax evasion that is solemnly prophetic, and that is, that unless the legislative feet are got squarely on the ground, and the legislative mind made to understand the long suffering public will claim the inherent right to resist the payment of all taxes when the burden becomes

(Continued on Page 32)

Layout Charts for Pipe Cutting and Welding Are Found to Be Very Useful in Oil Industry

By W. A. STOVER

A chart has been devised which facilitates the development of patterns or templates for cuts of various angles. It does not require any special tools or drafting skill to be able to make an accurate pattern when using the chart. The only tool necessary is a carpenter's square. The cut may be chalked off directly on the pipe if desired. Where a number of like cuts are to be made, time will be saved if a pattern is made.

Let it be required to develop a pattern for a two-piece 45-degree elbow made of pipe having an outside diameter of 8½ inches (Figure 3).

1. Take a strip of paper about 1 inch wide and 5 or 6 inches long; lay its edge along horizontal line on chart indicating outside diameter of pipe, which in this instance would be the 8½-inch line. Now make two marks on the strip of paper; one where the vertical line A intersects the 8½-inch horizontal line, and one where the 22½-degree line intersects the 8½-inch line. (See a, Figure 1.)

2. The strip of paper is then moved to the other side of the chart with the marked edge parallel with the horizontal lines and with the two marks coinciding with the diagonal line B on the left, and with the vertical line C on the right. Mark with a pencil where the sloping lines 1, 2, 3, 4 and 5 intersect edge of the paper strip. (See b, Figure 1.)

3. With this strip of paper marked we are prepared to develop the pattern.

On a piece of brown wrapping paper draw two vertical lines, D and E, at a distance apart equal to the circumference of the pipe and divide this distance into 24 equal spaces by drawing vertical lines the proper distance apart. This should be done very accurately. Then take strip of paper, place it along one of the vertical lines with its closer marks toward the top, and draw horizontal lines across the vertical lines to coincide with the marks on the paper strip. (See b', Figure 2.) Then turn the paper strip so the closer marks are downward, with the top mark on paper strip coinciding with the lower horizontal line just drawn, and draw another set of horizontal lines as before. (See b'', Figure 2.)

Plotting the Curve

We now have a number of rectangular sections of varying sizes from which to plot the curve of the pattern. To do this commence at the lower left-hand corner of the lower left-hand section and plot a curve diagonally through each of the adjoining sections until the top section is reached, then continue downward to the lower right-hand corner. Cut paper along curved line and the pattern is ready for use.

The same procedure is followed in making elbows of angles other than 45 degrees. If a 30-degree elbow were required, the strip of paper a, Figure 1, would have to be marked at the 15-degree line.

Let it be desired to develop a pattern for a tee to be made of pipe with an outside diameter of 8½ inches as shown in Figure 7.

1. Take a strip of paper about 1 inch wide and lay its edge along horizontal line on chart indicating outside diameter of pipe, which in this instance would be the 8½-inch line. Now make two marks on the strip of paper; one where the vertical line A intersects the 8½-inch horizontal line, and one where the 45-degree line intersects the 8½-inch line. (See a, Figure 4.)

2. The strip of paper is then moved to the other side of the chart with the marked edge parallel with the horizontal lines and with the two marks on the strip of paper coinciding with the diagonal line B on the left, and with the vertical line C on the right. Mark with a pencil where the sloping lines 1, 2, 3, 4 and 5 intersect edge of the paper strip. (See b, Figure 4.)

3. With this strip of paper marked as it is, we are prepared to develop the required pattern.

On a piece of brown wrapping paper draw two vertical lines, D and E, at a distance apart equal to one-half the circumference of the pipe and divide this distance into 12 equal spaces by drawing vertical lines the proper distance apart. This should be done very accurately. Then take the strip of paper and place it along one of the vertical lines with its closer marks toward the top, and draw horizontal lines across the vertical lines to coincide with the marks on the paper strip. (See b', Figure 5.) Now turn the paper strip so the closer marks are downward, with the top mark on paper strip coinciding with the lower horizontal line just drawn, draw another set of horizontal lines as before. (See b'', Figure 5.)

From the rectangles thus formed, start at the center line, FG, and describe the curved lines as shown in Figure 5.

The pattern as shown serves to make the cut for the horizontal member of the tee. The cut for the vertical member is made by using one-half of the pattern—marking one side of the pipe and then shifting the pattern to the other side. (See Figure 7.)

Closed End

To make a pattern for closed-end the same procedure is followed as when making a pattern for a tee. The full pattern is used for making the end piece, and half the pattern for making the sides. (See Figure 6.)

Note: Full size blue printed charts, showing standard line pipe sizes and O.D. sizes, both up to 20 inches in diameter, accompanied by instruction sheets, may be obtained for small charge from G. S. Birch, Box 2021, Tulsa, Okla.

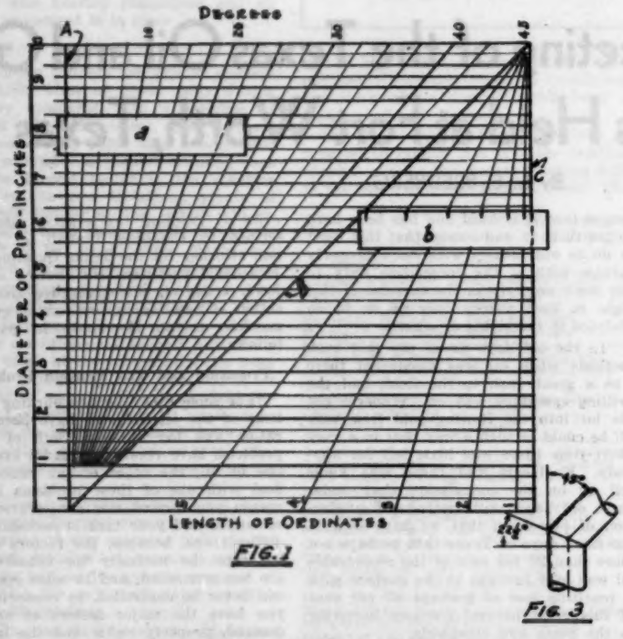


FIG. 1

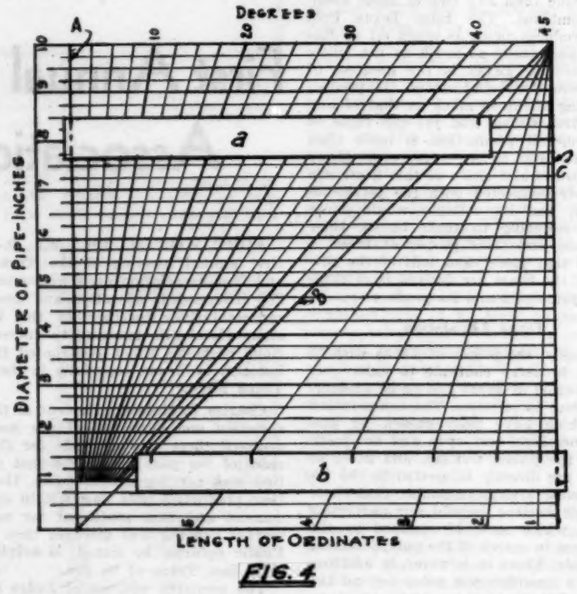


FIG. 4

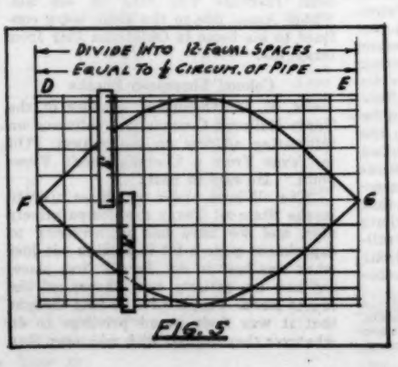


FIG. 5

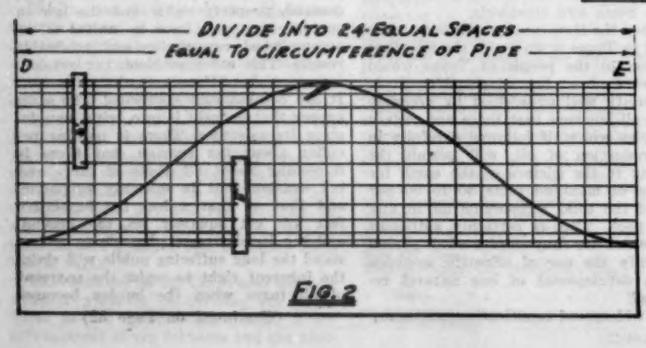


FIG. 2

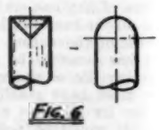


FIG. 6

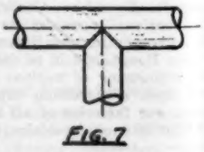


FIG. 7

FIG. 3

Production Engineers Will Be Next Concerned With Cleaning and Reconditioning Wells

By L. G. E. BIGNELL
Petroleum Engineering Editor

A preliminary check of the records for 1932 indicates that there were approximately 15,040 completions with about 3,542 dry holes and a little over 10,000 oil wells, the balance being gas wells. The approximate number of wells drilled in the East Texas oil fields was 5,879 with only a few dry holes or gas wells. In other words, over half of the oil wells drilled in the United States in 1932 were located in one district and that district is now approaching the point where additional wells will be comparatively few.

It has been stated that at this time there is one well to about every 12 acres of proven territory in East Texas. It has been estimated by some that one well to 10 acres will be about the limit which means that about 1,860 more wells will be required. This would bring the total number of wells in the area to about 11,400. There will be some parts of the district where additional wells will be drilled beyond the 10-acre limit, so it is possible that the field will have about 12,500 wells in it when completely drilled up.

During 1932 it is estimated that the daily average production in the United States was about 2,194,000 bbls., or a total of a little more than 800,000,000 bbls. for the year. For the first 10 months of the year the domestic oil run to stills averaged about 2,172,000 bbls. daily. The refinery requirements for the last two months were approximately the same, or domestic production exceeded domestic consumption by about 22,000 bbls. daily.

Imported oil used during the first 10-month period averaged about 122,790 bbls. per day or the total still runs exceed domestic oil produced by about 100,000 bbls. daily.

The industry is now dependent upon the ability of the East Texas and Oklahoma City Pools to produce the quantity of oil actually required to supply the refineries. If the demand for finished products should increase during this year these fields will be required to furnish the crude oil as they are about the only areas from which any appreciable amount of additional oil can be readily secured.

It is true that Conroe Field in Montgomery County, Texas, the Van Pool in Van Zandt County, and the Yates Field in Pecos County could increase their daily production. The allowable for Conroe is now 18,500 bbls., for Van 14,000 bbls. and for Yates 60,450 bbls. Conroe might be increased by 30,000 bbls., Van by 35,000 bbls. and Yates by 40,000 bbls. or a total increase for the three fields of about 105,000 bbls.

Old Wells Important

Any survey of available oil must include Kettleman Hills and some other California fields. The wells in that state produced 471,000 bbls. per day during the week of December 31, with Kettleman Hills yielding 59,500 bbls. This field could produce many times that amount, but California refined products are restricted in distribution so long as comparatively low prices prevail for gasoline in the other parts of this country. Kettleman Hills is a unitized field and while it is possible that it could furnish oil enough to supplant the East Texas production as to daily rate, distribution of that oil would present problems.

It is essential that the conditions as they exist be considered rather than theorize about what might happen if East Texas, Oklahoma City and Kettleman Hills Fields were unable to produce their quota of oil. But after giving due consideration to the ability of these pools to produce additional oil as the occasion may require, the fact remains that the industry is now rapidly approaching that balance of supply and demand that has been striven for during the past six or seven years.

Even if so-called flush pools can supply needed additional oil for the summer of 1933 there is another phase of the situation to be seriously considered and that is gathering and transporting the crude from the fields to the refineries. It is too much like putting all the eggs into one basket to permit the flexible production to be available only from a limited number of fields. Refineries are distributed throughout the country, and there has been a big investment in trunk pipe lines and gathering systems. These transportation systems have been planned to secure the crude from all of the fields in the country and distribute it in a direct route to the refineries.

It follows that certain oil corporations have better facilities for handling all phases of their business than others. But at best it is doubtful if any one company is so well protected with future reserves that it is not interested in getting some oil from the older pools.

Refinery practice has built up certain preferences for crude oils from the older fields and it is not an unusual thing for a refinery to order from its transportation company a supply of oil from specific pools, even though the pipe line may be able to deliver the same amount of oil from some other pool much more readily. This condition is due to the methods employed by refinery superintendents and technicians in making up still charges that best suit the type of products they intend to make.

All of these conditions, and many others, will necessitate that the present general systems of transporting oil be maintained as active as possible. This requires that the older fields be kept in a condition to permit of producing oil at reasonable costs and one of the problems now facing the engineers of the production departments of the oil companies is reconditioning of old wells.

Many Clean-Out Methods

Production men have used various methods of cleaning out and reviving old wells. Sand wells were shot, cleaned with light strings of tools and bailed; hot solutions were poured into the wells to dissolve paraffin; heaters were used for the same purpose; debris in the holes was blown out by compressed air and lime wells were treated with acids. Repressuring with gas, air and flooding with water was practiced. Vacuum was held on the sands. Soda ash solutions were injected, in fact, the ingenuity of the operators was taxed to find new and novel means of increasing the output from the wells so long as the prices paid for the oil was high enough to warrant the expense.

As crude prices declined and additional supplies of oil were made available from new pools the tendency to clean old wells decreased because it was cheaper to secure oil from flush fields than to pump it from the older wells.

It is estimated that about 2,100 pools have been opened in the United States since 1859 and in them a total of 613,000 oil wells were completed. Of this number about 12,000 wells will flow naturally and the balance or 302,000 wells must be produced by some mechanical method.

The average production per well during the first six months of 1932 was 6.91 bbls. per day. This included flush and old wells. The average for the old wells is about 3 bbls. or a daily production of 906,000 bbls. from that source. This leaves about 1,166,000 bbls. to be produced daily from the 12,000 flowing wells.

The settled production of 906,000 bbls. is declining slowly but the rate of decline for the flush fields is comparatively rapid. Peak of possible production has been passed in all fields with the possible exception of Conroe and Kettleman Hills where additional drilling will furnish a considerably greater amount of oil.

Statistics show that the average life of wells drilled since 1910 is about 21 years. This will place the final recovery from fields completed since 1926 at from 1,947 to 1,954, but the amount of oil those fields will be yielding after 1935 will be the determining factor in balancing demand and supply.

Practice of Cleaning Revived

Since the summer of 1929 when oil prices began to drop it has been necessary for operators to check into production costs very carefully. Proration was restricting the amount of oil that wells could produce in flush areas and this was reducing gross incomes. With these conditions existing it became increasingly important that wells that could not show profits be pulled, plugged and abandoned and this policy was followed by many companies to a very considerable degree.

After weeding out those wells that were particularly costly to operate there came a change in practice. The old leases were either disposed of to parties who could operate them and make some profit because of low overhead, or the actual costs of production were lowered by curtailing every form of expense chargeable to the well. This latter practice has resulted in a very much lower average pumping cost, also in efficiency being introduced into pumping methods much beyond those that were effective before special attention was given to the pumping problems.

The next step in the program of adjustment has been to recondition old wells to permit additional oil to be recovered. As every possible economy of operation had been made effective the only other means by which increased income could be secured was to increase the volume of oil from the wells. Under existing setups for operation of a lease it costs no more to produce additional oil and the gain in oil represented increased income to the producers.

In the Mount Pleasant, Mich., fields the Pure Oil Co. was faced with a problem of keeping its lime wells on production. The Dundee lime from which it was producing had a tendency to plug, and the wells fell off rather rapidly in production rate. In co-operation with Dowell, Inc., of Midland, Mich., the Pure Oil Co. worked out an acid treatment process that has increased the production of about 100 wells by about 342 per cent.

This patented process has been applied to other lime well fields in the Indiana-

Report of Production Practice Committee to the American Petroleum Institute

The following report of the committee on production practice to the board of directors of the American Petroleum Institute was received by the directors, filed without action being taken and the committee discharged:

"The board of directors of the Institute at its meeting at Chicago, November 19, 1931, authorized the appointment of a committee on production practice to prepare and recommend to the board a comprehensive program designed to put into practical operation a principle of oil production commonly referred to as 'the new conception of oil production.'

"The production practice committee subsequently appointed has given detailed study to the problem and has availed itself of the advice of a legal subcommittee and a subcommittee of engineers, geologists and practical operators, and begs leave to make the following report:

"Complete records have been made of the proceedings of the subcommittees and same are on file in the office of the secretary of the production division of the Institute where they are available for inspection.

"The committee interprets the resolution of the board adopted November 19, 1931, as though it read as follows:

" 'Whereas, the prevailing practices in the development of oil and gas pools and the production therefrom based upon the capture by each owner in the pool of as much as he can, as fast as he can, regardless of injury to his neighbors, have been proven to be wasteful of these irreplaceable natural resources, inequitable as between the owners of the common reservoir and demoralizing to the whole petroleum industry;

Resolutions Offered

" 'Now, therefore, be it resolved, by the board of directors of the American Petroleum Institute, that it endorses, and believes the petroleum industry likewise endorses, the principle that an oil field or pool should be so developed and operated as to recover the maximum quantity of oil therefrom and that each owner of the surface is entitled to receive at the surface only his equitable and ratable share of the recoverable oil and gas contained in the pool, without waste of reservoir energy or the use or dissipation of same in such manner as will reduce below the maximum ultimate recovery from the pool, such share to be the quantity of recoverable oil and gas which underlay such surface owner's land at the opening of the pool, or the equivalent thereof.'

"In order to carry out the new conception in any oil pool physical wastes underground and aboveground should be prohibited and ratable production should be required.

"Such wastes are injurious to the public as well as to individual property owners. They are chiefly attributable to unratable production.

Physical underground waste occurs when oil or gas that could otherwise be recovered at a profit is left in the ground either by negligence or indifference on the part of operators or by deliberate con-

(Continued on Page 40)

Ohio district with very good results and it is anticipated that it can be used with good advantage in all lime fields. Dolomites require special acid, or rather acids of greater strength, but they are being treated satisfactorily.

Sand Wells Present Problem

While acid has been used in lime wells for many years and has been tried in some sand wells, there still remains many details to be worked out to make such a process applicable to the average sand producer. Some tests are soon to be made upon Bartlesville sand wells in the Oklahoma fields by the Dowell method and the results will be watched with much interest.

There are possibilities that some sands will contain a sufficient amount of calcareous cementing materials to permit of acid treatment benefiting them. However, in the opinion of some geologists those sands that will be susceptible of treatment by acid will be of the older geological periods. The younger sands were not laid down in waters containing an appreciable amount of lime in solution and are therefore made up of fairly clean silica sands.

In the second edition of William H. Twenhofel's book, "Treatise on Sedimentation" the following table of composition of 253 sandstones is given. These were not oil sands and therefore are not truly indicative of oil field conditions but as the work was done by the U. S. Geological Survey it may be considered as accurate and is interesting.

	Per cent
SiO_2	78.66
TiO_2	0.25
Al_2O_3	4.78
Fe_2O_3	1.03
FeO	0.30
MnO	trace
CaO	5.52
MgO	1.17
K_2O	1.33
Na_2O	0.45
Li_2O	trace
H_2O	*1.64
P_2O_5	0.08
CO_2	5.04
S	.....
SO_3	0.07
Cl	trace
SrO	trace
BaO	0.06
	100.41

*Includes organic matter.

Of the 21.34 per cent of elements other than silica making up these sandstones about 16.60 per cent are soluble in acids under some conditions. Their solubility will depend upon the form in which they are present. If these elements were present in the pore spaces of a sandstone and could be removed by acid this would add appreciably to the pore space between the grains and should aid in permitting the oil to escape from the reservoir into the well.

Sand Tamping Effective

If it is found that oil sands do not respond to acid treatment enough to make it economically profitable to give them this type of cleanout, it has been found that wells shot by the sand tamping method have shown increases of more than 200 per cent in Oklahoma and Kansas and nearly 300 per cent in Texas. In the Salt Creek Field of Wyoming, 104 wells shot by sand tamping method increased their average daily production from 6.26 to 68.36 bbls. Paul F. Lewis, Mid-Continent manager for American Glycerin Co., Tulsa, Okla., has published a very interesting bulletin of this sand tamping process which can be secured direct from him.

After shooting by this method, which consists of placing a shot in the hole to be exploded by a time bomb and above the bomb a compressible packer of twigs or brush, broken bricks or tile and then a considerable section of moist, fine sand, it has been found that the effect of the shot is directed into the sand body. Cleanout must follow and this has been done with bailer and light tools.

In California and Oklahoma City Field a new type of suction bailer has been used that should lend itself to cleaning out after shots. This bailer consists of two compartments made of heavy casing, the upper sealed at atmospheric pressure while the bailer is on the derrick floor. The bailer is lowered into at least 400 feet of fluid in the hole and the valve in the bottom of the upper compartment is tripped. This permits the fluid, under a hydrostatic pressure of about 200 pounds per square inch, to rush into the lower compartment, sucking with it any material that will pass through the opening in the bottom of the compartment.

The velocity of the fluid is great enough to carry into the bailer milled up steel parts, large rocks, and great quantities of loose sand and mud. In one well in the Oklahoma City Field 154 feet of material was removed in 10 days by suction bailing and it was found that the lower 50 feet consisted of rotary mud. This well after cleaning flowed about 40 bbls. per hour through choke.

In another Oklahoma City Wilcox sand well a bridge had formed in the hole and it was removed with the suction bailer and after some additional cavings were taken out the well began to flow under such high pressure that the hole had to be loaded to complete the work.

Good results have been secured with this type of cleanout tool in the Seminole Field. One company in Oklahoma City Field thinks well enough of the process to rig up a portable winch on a truck for handling the bailer. It is lubricated into the hole and the line packed off by blowout preventer. This permits bailing of the well, under pressure and wells so treated have responded with increased production.

The suction type bailer can be used for cleaning out debris after acid treatment, after shooting and for cleaning in any well in which a fluid column of approximately 400 feet can be maintained. In wells with low rock pressure there is the possibility that any fluid introduced into the hole will flow back into the sand, but if the face of the hole is plugged with paraffin and other sediments it might be possible to fill the hole with oil and use the bailer to remove cavings.

The Dowell Co. have two types of paraffin solvents, one for tubing and casing and the other for the face of the sand. Both have given good results in actual use and they could be used after a well had been cleaned with bailer.

Miscellaneous Equipment

Many companies in the Mid-Continent Fields are now using mounted winches for their cleanout work and they have proved effective and lowered costs for this type of work appreciably. This type of equipment is flexible and the winch is powered from the motor in the truck. With this type of outfit some wells have actually been deepened a few feet by giving a drilling motion to the tools through manipulation of the clutch in the winch.

Portable drilling machines are also used for cleanout work in many fields. Where pumping derricks are left over the wells it is possible to pull rods and tubing and run cleanout tools with the pumping engine, using a light set of bullwheels for the cleanout line.

The compressed air method of cleaning a well has been used with success in both eastern and Mid-Continent fields. A portable compressor with high pressure tank is moved to the well and after the tank has been filled with air under relatively high pressure the air is released into the bottom of the hole through tubing and will force fluid and cavings to the surface through the annular space between tubing and casing. This is known as the Dunn-Smith method and has been described in various articles in The Oil and Gas Journal.

There are numerous other pieces of equipment available for cleaning and repairing wells and nearly any kind of a job can be done by using some one or more of these pieces of apparatus. Most of them have been described in technical articles and are generally known to production men.

Repressuring Methods

After the pores and face of the reservoir have been cleaned of depositions and cavings it has been found that the oil will gravitate into the hole much more readily than when resistance was set up by obstructions. There are some fields where the rock pressure is so low that artificial means of driving the oil to the well have been resorted to. They consist of applying vacuum to the formation, and repressuring with air, gas or water.

By applying methods that have been demonstrated in various fields it is possible to increase the rate of production from many old wells and do so within economic limits.

In many of the older fields there is no prorated limit to the amount of oil that can be produced and it is therefore possible to market the increased production without restriction. This increase in income would be, in many cases, the margin between profit and loss in operating the property.

If there is an increased demand for crude this summer it seems quite apparent that it is going to be necessary to apply cleanout methods to old wells that will increase their outputs. If the estimates made by geologists and petroleum engineers well qualified to judge are correct, many Bartlesville sand fields in Oklahoma have only produced from 15 to 17 per cent of the oil in the pools. These fields have not been subjected to natural water drives. Where water has assisted in repressuring the reservoir it has been estimated that the recovery has been from 40 to as high as 70 per cent.

It is to get an additional portion of the 80 per cent of the oil that still remains in the reservoirs that the work of increasing recovery will be directed and it seems to present the next set of problems for the engineers and production men. Past results have been profitable in the majority of cases where the processes have been applied by experienced men and after carefully working out the plan to be applied. Data have been accumulated after such operations and is available and to insure the industry as a whole an ample supply of crude oil at prices in keeping with general industrial conditions it is believed that more extensive uses will be made of these various processes and different types of equipment.

This is especially true at this time when it is becoming increasingly difficult to find untested territory in which to prospect for new oil fields. It is therefore going to be more profitable to spend money in reconditioning old properties than risking several hundred thousand dollars upon deep tests in wildcat territory.

New Texas Railroad Commission Order Correcting Allowable for East Texas

AUSTIN, Tex., Jan. 9.—The Railroad Commission of Texas, oil and gas division, has issued the following special order amending its order of January 2 relating to the East Texas Field:

Whereas, this commission on January 2, 1933, entered an order limiting the aggregate production from the field to 290,000 bbls. per day and prescribed a formula by which said amount should be distributed to the various wells, and, through clerical error and contrary to the intention of the commission, fixed the amounts stated in said formula so that in fact the aggregate production would exceed the limitation of production to the maximum of 290,000 bbls. per day; it is ordered that said order be amended to read as follows:

This commission having considered evidence, and considered all conditions and all factors necessary to a proper determination of the allowable daily production during the next 90 days, is of the opinion that to prevent waste and to bring the production more nearly in conformity with the actual demand and secure connections to unconnected wells, the daily allowable production should be limited as hereinafter appears.

Effective at 7 o'clock a.m., January 10, 1933, and continuing until April 1, 1933, unless sooner changed by order of this commission, based on other findings of fact which may be ascertained by it, as to market demand or waste as defined by law, Rule 27 as adopted by order of December 8, 1932, is hereby changed to read:

Rule 27. Effective at 7 o'clock a.m. January 10, 1933, and continuing until April 1, 1933, the aggregate production of all wells in the East Texas Field, shall not exceed 290,000 bbls. daily. The commission, through its agents in the field, will issue schedules effective at 7 o'clock a.m. on January 10, 1933, and on February 1 and March 1, 1933, to govern production of each and every well therein during said months according to a combined bottom hole pressure and per well allowable basis as follows:

(a) During the period 7 a.m. January 10, 1933, to 7 a.m. February 1, 1933, each and every well capable of producing oil shall be permitted to produce 28 bbls. daily, which amount shall be designated "daily well allowable." In addition thereto each well shall be entitled to produce the amount properly assignable to it based on bottom hole pressure as appears in Paragraph (b) hereof. For each monthly schedule thereafter the daily well allowable shall be computed as follows: The commission or its duly accredited agents in the field, effective at the beginning of each monthly period, shall ascertain the number of wells capable of producing oil, as of the first day of such period and the sum of the total wells capable of producing oil on the first day of each monthly period, plus the probable completion during such period, shall be divided into the sum of 250,000 bbls. or so much thereof as may remain of the 290,000-bbl. maximum field allowable after providing for bottom hole pressure allowance of all wells based on pressure allowable shown in Paragraph (b) hereof. The quotient resulting therefrom shall be the daily well allowable for such period, and each well shall be entitled to produce during such monthly period its daily well allowable so computed plus the amount provided for in Paragraph (b) hereof.

Additional Allowables

(b) (1) Each well having a bottom hole pressure of 1,000 pounds or less shall be entitled to produce 2 bbls. per day in addition to its daily well allowable; (2) each well having a bottom hole pressure of more than 1,000 pounds and less than 1,100 pounds shall be entitled to produce 2.6 bbls. per day in addition to its daily per well allowable; (3) each well having a bottom hole pressure of 1,100 pounds and less than 1,200 pounds shall be entitled to produce 3.2 bbls. per day in addition to its daily per well allowable; (4) each well having a bottom hole pressure of 1,200 pounds and less than 1,300 pounds shall be entitled to produce 3.8 bbls. per day in addition to its daily per well allowable; (5) each well having a bottom hole pressure of 1,300 pounds and less than 1,400 pounds shall be entitled to produce 4.4 bbls. per day in addition to its daily per well allowable; (6) each well having a bottom hole pressure of 1,400 pounds or more shall be entitled to produce 5 bbls. per day in addition to its daily per well allowable.

Any interested party who is dissatisfied with this order or with the administration thereof, shall notify the commission, through its chief supervisor at Austin, Tex., or its deputy supervisor in said field in writing so that the commission may, if the facts and the law so justify, take such action as will satisfy the complaining party.

This cause is hereby held open upon the commission's docket for the adoption of such supplemental or amendatory orders as in the commission's judgment may be required under evidence adduced in hearings herein.

Continental Safety Program Cuts Out Banquets, Oratory and the Like, But It Gets Results

By THOMAS F. SMILEY

Who ever heard of a safety program without pep meetings, banquets, speeches? Preposterous!

You know: "We have with us tonight—"

Well, anyway, the Continental Oil Co., with what looked like scornful disregard for a fine old custom, conceived the notion that the chief purpose of safety work around refineries, grease stations and oil fields was to eliminate accidents, not to promote conviviality, provide gastronomic pastime or add to the world's overproduction of oratory.

Safety and sanitation have a high place in the economy of the Continental Oil Co., so high in fact that nothing that cannot contribute directly and unmistakably to the ends sought is permitted to clutter up the plans adopted. Human values receive full appraisal, but at no time are practical results lost sight of.

"In addition to the prevention of human suffering, the reduction of accident experience rates is of economic importance and should have our foremost attention," said D. J. Moran, president, commenting on this phase of the company's activities.

Expressing virtually the same thought, W. W. Bruce, vice president, said: "Aside from the humanitarian angle, which is paramount, industry realizes that these wastes, along with others, must be and can be reduced to a minimum if it is to secure the greatest return on the investment involved."

Such differences as exist between the Continental's safety work and that of other large industrial concerns lie not so much in the safety measures themselves as in the methods employed to put them into operation and to enlist the enthusiastic co-operation of the workmen. Here are salient features of the safety program as outlined by the company:

Features of Safety Program

(a) Little or no contact with associations holding banquets and general safety meetings, except the National Safety Council.

(b) Fullest support from department heads and placing responsibility on those in charge of supervision and inspection of equipment.

(c) Study of injury reports and accident summaries to determine the major causes of accidents and to detect promptly signs of laxity in any particular district.

(d) Distribution of safety manuals, bulletins and other literature giving instruction and pertinent information in easily understandable form.

(e) Watching the personnel records to find if careless habits are contributing to accidents and loss of time.

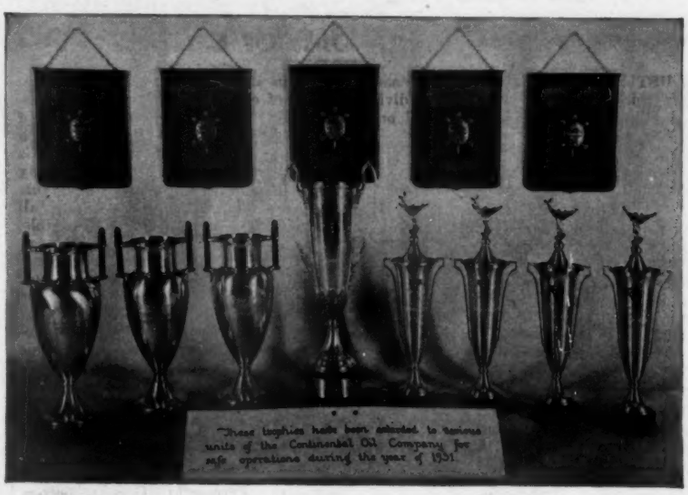
(f) Linking accident prevention and fire prevention work, thus eliminating much duplication of effort.

(g) Providing closer contact between foremen and superintendents with the men under them, thus fostering mutual confidence and understanding.

Although this program makes no provision for safety meetings given over largely to social and gustatory features and to after-dinner eloquence, the company carefully observes state laws requiring certain assemblages of refinery employes for instruction along safety lines. Not only that, but both refinery and oil-field workmen are called together for safety instruction and training at various times, whether the law requires such action or not. All such meetings, however, are devoted solely and strictly to the business in hand. Nothing of a merely entertaining nature is injected to divert attention from the thing which it is sought to press home upon the minds of the employes. To this policy the company attributes in great part the high degree of success it has attained in inculcating habits of care and in reducing the number of accidents and fires.

Stupid Workman a Hazard

Vigorous and unceasing efforts are made to stop every practice and to remove every condition that might cause an accident or start a fire. It might be mentioned in passing that one kind of elimination which has been found imperative is the elimination of the workman who ignores rules adopted for his own safety and that of his fellows and the workman who is so stupid as to be a menace in an industry bristling with hazards. Experience has shown the number of such workmen to be relatively small.


These trophies have been awarded to various units of the Continental Oil Company for safe operations during the year of 1931

Illustrating the thickheadedness which the company encountered now and then was a man who found that ice had formed in the bottom of a valve in a gasoline line between a pump and a storage tank. He held a torch under the valve to thaw it out. As might have been expected, the valve cracked and escaping gasoline caught fire, destroying the storage tank and its contents.

"What about the workman?" was asked.

"Oh, he was too dumb to be hurt much," it was explained. Of course this workman was "eliminated."

The company's big refinery in Ponca City, Okla., seat of the general offices, offers innumerable examples of the important place which safety work holds in Continental's operations. At the invitation of J. S. Boylan, assistant superintendent of the insurance, safety and sanitation division and chief fire marshal, you step into an automobile for a ride with him about the plant. It is a company-owned car and as you drop into the front seat your eye is caught by a card on the windshield bearing this legend: "The good driver uses what the Lord gave him to keep his ears apart."

But Not on the Steering Wheel

Another reminder, noted later, reads: "The motto 'In God we trust' belongs on the dollar, not on the steering wheel."

As you visit one building after another Mr. Boylan tells of the measures adopted to eradicate unsafe practices, of protective devices installed, of the way the interest of employes in safety work has been increased and held.

There are 1,280 acres of land in the Ponca City property. The refinery covers 160 acres, the office and grounds 80 acres and two tank farms the rest. Around every tank where an explosion or a break might occur is a fire wall.

At strategic points in the refining plant are two foamite stations, each with 50,000 gallons of foamite solution, with steam-operated pumps to carry the solution to areas where it might be needed in case of fire. Auxiliary gasoline-operated pumps are installed for use in case the steam pumps should break down. Water for fire extinction is forced to any point where it is needed by electrically operated pumps.

In addition to these stations there are seven fire stations, each provided with a 40-gallon portable engine, a foamite hose cart, water hose carts and emergency equipment including stretchers, fire blankets, asbestos suits, gas masks, life nets, etc.

"No smoking" signs are posted plentifully. "And they mean just that," it is explained, with the further comment that warnings against smoking placed at the entrance to plants mean little or nothing. They are likely to be forgotten or not seen at all.

Steel-Capped Shoes Stopped That

There was a time when foot injuries were common, the result of tools, pieces of equipment and so on falling on the feet. That virtually has been ended by requiring workmen to wear steel-capped shoes, provided at cost by the company.

The deadliness of carbon monoxide, generated by a running automobile motor, is impressed upon employes in various ways. One of them is the rather grisly humor of this warning: "If you persist in running your motor with the garage doors closed, simplify matters by posting the telephone number of the nearest ambulance service in a conspicuous location."

Periodic inspection of ladders is enjoined. Rungs become loose, side rails weaken and supports decay. "Don't allow a ladder to throw you down just because you failed to note a defect," reads a warning which is supplemented by this: "Climbing is dangerous when both hands are full of tools. Keep at least one hand available for retaining balance."

This latter admonition is understood to have been prompted by an accident which befell a Continental stillman in New Mexico who was about to gauge a tank car. He carried a bar in one hand and a thermometer and a gauge-stick in the other. He had reached the dome step when he lost his balance and, after wildly waving his bar, thermometer and gauge-stick in the air for a moment, fell to the ground, suffering painful injuries.

A set of safety manuals, of uniform pocket size and containing 24 to 40 pages, play an important part in diminishing accidents and fires. There is a manual each for the production department, manufacturing department, service stations and the employes of the Continental Steamship Co. The last page bears the following statement, to be signed by the workman and mailed to his division office: "I have read this book and fully understand all the rules. In consideration of my employment by the company and knowing that my employment is dependent upon my obedience to rules and orders, I promise to obey these rules to the best of my ability."

Back of Each Rule Is Experience

"Each routine operation has its own hazards," said E. J. Nicklos, vice president in charge of production, commenting on the manual issued for his men. "Back of every precaution is experience — the record of some oil worker killed or injured. It should be unnecessary for every man to learn caution by actual experience or seeing a serious accident. It is far better that information about safe practices which have grown up throughout the industry be made available for all."

Walter Miller, vice president in charge of manufacturing, expressed the belief that marked benefit had accrued from use of the manuals. "The Continental Oil Co. is one of the leaders in the application of sensible, practical safety measures," he said. "Any employe who fails to read his book thoughtfully and frequently and to abide by the regulations prescribed is not only endangering himself, but also the happiness of his family and the safety of his fellow workmen." Mr. Miller pointed out the steady reduction in accident frequency under the company's safety campaign and added: "Certainly a portion of this improvement is due to the study workmen have given to our manuals."

The manual for service stations, under the supervision of E. S. Karstedt, vice president in charge of marketing, reminds the service station salesman at the outset: "You are the agent of the company and as such you are responsible for the safe delivery of gasoline into the customer's car. Your caution should not cease until the customer has driven off your lot."

Experts in safety work from the United States Bureau of Mines were engaged by the Continental to devote 60 days to training and demonstration in the company's plants. A group of selected Continental men received special coaching to fit them for instruction work, and these selected men continued the training of other employes in safety and first-aid measures after the departure of the Bureau of Mines experts. Annual inspections are made by representatives of the Bureau of Mines to assure maintenance of the safety standards established by the Bureau instructors.

Safety Contest Stirred Rivalry

A departmental safety contest conducted in 1930 in the Ponca City refinery produced such excellent results that cer-

(Continued on Page 31)

High Quality Motor Fuels and Other Products Are Obtainable From Esthonian Shale Oils

By GUSTAV EGLOFF and E. F. NELSON
Universal Oil Products Co.

Oil shale, called Kukersite in Esthonia, was discovered in that country in 1790. However, it was not exploited until 1916, when Petrograd was suffering from a severe fuel shortage and mining for oil shale was begun at Kohtla with the aim of relieving the situation. In 1919, however, the Esthonian government took over the shale district at Kohtla, where they are still operating the largest mine and plant in Esthonia. Other concessions were made later to private companies at Vanamoisa, Pussi, Sillamagi and several other places.

Deposits of Esthonian oil shale cover an area of 2,400 square kilometers, from Kadrina on the west to Narwa on the east. The typical shale development is in seven seams, interspersed with limestone bands, located in the Ordovician system. The crude Esthonian shale ranges in color from light to dark brown, is soft and easily mined, has a specific gravity of 1.5 (average), ignites easily, and burns with a smoky flame.

Average proximate analyses of freshly mined and air-dried Esthonian oil shale are quoted in the accompanying table from Kogerman and Roberts[1]:

Esthonia has a number of oil shale plants, each using a different method of distillation. The largest of these is the state-owned plant at Kohtla which operates six Pintsch producer retorts. At Pussi, shale distillation is carried out by the Eesti Patendi A/S system, while the New Consolidated Goldfields, Ltd., operates at Tallinn with the new Davidson rotary retorts.

The properties of a typical crude oil obtained at the Kohtla plant are quoted below:

Crude Shale Oil from Pintsch Retort

Spec. grav.	1.0
Moisture, %	1
Reaction	neutral
Flashpoint, °F.	181
Insoluble in benzol, %	0.2
Vis. @ 122° F. (Engler)	5
Sulphur, %	1
Calorific value (cal./kg.)	9,600

This Kohtla oil contains very little light gasoline, and its chief marketable products are Diesel oil, lubricating oil, and estobitumens. The Diesel oil is a product having the following characteristics[2]:

Flashpoint (Pensky Martens) °F.	Above 140
Viscosity (Engler) @ 122°F.	1.0–1.3
Spec. grav.	0.93–0.95
Sulphur, %	0.9
Coke (crucible test), %	3–4
Calorific value (cal./kg.)	9,700–10,000

Distillation Test

°F.	Per cent
Up to 392	5–8
392-482	15–20
482-572	20–30
572-680	30–40

The estobitumens or asphalts are produced in five grades, by air-blowing the crude oil. Their properties vary as shown in the table[3]:

Melting point (Kraemer-Sarnow) °C.	64–145
Spec. grav.	1.07–1.09
Solubility in CS_2, %	98.5–99.5
Solubility in CCl_4, %	98–99
Sulphur, %	0.9
Mineral ash, %	0.3–0.5
Flashpoint, °F.	356–428
Coke, %	25–35

Other products made from Kohtla crude Esthonian shale oil are pitch and a phenolate which is used as a wood preservative. Products obtained from the distillation of shale in the Eesti Patendi retort include a gasoline, a light oil, and a mixture of medium and heavy oil. The medium and heavy oils represent 77 per cent of the total products. Analyses of these oils are tabulated below:

[1]Trans. Second World Power Conference, Berlin, 1930, Vol. 8, p. 112.
[2]Kogerman and Roberts (loc. cit.).

FRESHLY MINED AND AIR DRIED OIL SHALE

Shale—	Water %	Ash %	CO_2 %	Organic matter %	Calorific value cal./kg.
Freshly mined	18.2	30.0	7.9	43.4	3,000-3,500
Air-dried	1.5	36.1	9.5	52.9	4,200-4,500

Properties of Oils from Eesti Patendi Retort

1. Mixture of Medium and Heavy Oils

Specific gravity	1.01
Viscosity at 122°F. Engler	7.0° to 7.8°
Insoluble in normal benzine, %	About 10
Mineral substances, %	0.01 to 0.02
Moisture, %	0.4

Engler Distillation

Up to 392°, %	1.0 to 2.0
392 to 572°, %	16 to 17
572 to 680°, %	44 to 52

2. Light Oil

Specific gravity	0.810
Sulphur, %	0.90
Phenols, %	About 6.5
Unsaturated compounds, %	About 30

Engler Distillation

I.B.P.	14.7
°F.	% distilled over
Up to 212	2.0 to 3.0
212 to 257	8.0 to 10.0
257 to 302	13.0 to 15.0
302 to 365	17.0 to 23.0
365 to 392	7.6 to 8.8
392 to 428	10.4 to 12.0
Residue (above 428°F.), %	About 33%

3. Crude Gasoline

Specific gravity	0.767 to 0.770
Sulphur, %	0.72 to 0.74
Unsaturated compounds, %	About 28

Engler Distillation

I.B.P., °F.	118
°F.	% distilled over
Up to 212	21.5 to 25.3
212 to 257	21.7 to 23.8
257 to 302	18.8 to 19.4
302 to 365	15.0 to 16.0
365 to 392	4.3 to 4.6
392 to 428	5.4 to 5.6

Cracking Tests

An Esthonian shale oil, before being subjected to the cracking process, gave the following analysis:

°A.P.I. gravity	18.2
Flash (Cleveland open cup)	Below 78°F.
Fire (Cleveland open cup)	Below 78°F.
Flash (Pensky Marten)	Below 78°F.
Visc. S.F. @ 77°F. sec.	15
Cold test, °F.	Below zero
B.s. and w., %	0.4
Water (A.S.T.M. 300.12), %	0.7
Tar acids, %	47.2
Tar bases, %	2.5

A.S.T.M. 100 c.c. Distillation

I.B.P., °F.	164
Per cent distilled over	°F.
5	239
10	292
20	366
30	446
40	530
50	598
60	654
70	690
80	731
90	746
95	751
E.P.	754

°F.	% distilled over
400	24.0
410	25.5
437	29.9
572	47.0

This crude shale oil was distilled in order to obtain the yield of gasoline present and its characteristics. The following table shows the results of this operation:

E.P. of gasoline removed—	392°F.	437°F
Gasoline, %	22.0	28.3
Topped shale oil, %	76.1	69.8
Water, %	0.9	0.9
Distillation loss, %	1.0	1.0

Analysis of Gasolines

Endpoint of gasoline—	392°F.	437°F
Gravity, °A.P.I.	50.5	47.2
Color	brown	brown
Gum mg./100 cc. (copper dish)	430	510
Sulphur, %	0.28	0.32
Tar acids, %	3.0	4.5
Tar bases, %	0.5	0.5
Octane number	72	69

100 cc. A.S.T.M. Distillation

I.B.P., °F.	439	144
Per cent distilled over	°F.	°F.
5	184	186
10	202	208
20	226	238
50	274	299
90	349	394
E.P.	391	437
% over	98.0	97.5
% residue	1.5	2.0
% loss	0.5	0.5

Upon analyzing the above results it is easily seen that, although the straightrun gasoline has fine antiknock qualities, the other characteristics are not satisfactory and the gasoline would require acid treating to meet specifications. For this reason the whole crude was cracked to produce 392° F. endpoint gasoline with the simultaneous production of a residuum of very good quality. The topped crude after 392° F. endpoint straightrun gasoline had been removed (76.1 per cent of the crude) was likewise processed.

The charging stocks were subjected to cracking conditions and yielded the products shown:

Charge—	Crude shale oil	Topped shale oil
Pressure, lbs./sq. in.	350	200
Temp. (transfer), °F.	915	900
Gasoline, (% of charge)	42.7	27.4
A.P.I. gravity	53.1	52.7
Octane number	73	74
Residuum (% of charge)	51.7	69.6
A.P.I. gravity	2.8	2.7
% B.s. and w.	0.4	0.2
Vis. S.F. @ 122°F. sec.	172	103
Gas and loss (% of charge)	5.6	3.0
Gas (cu. ft./bbl. of charge)	281	...

The cracked gasolines showed higher octane rating than the straightrun product, at the same time meeting specifications which were not met by the latter product. Distillation analyses of the cracked motor fuels obtained are shown in the following table:

Gasolines

	From shale oil	From topped shale oil
A.P.I. gravity	53.1	52.7
I.B.P., °F.	116	106
Per cent distilled over	°F.	°F.
5	149	156
10	170	176
20	200	217
30	226	246
40	248	273
50	268	296
60	288	314
70	307	327
80	326	348
90	353	372
95	375	...
E.P.	390	396
Octane number	72	74

The Oil Man's Calendar

January

12-13—St. Paul, Minn., annual convention, Northwest Petroleum Association, Minnesota Division, Lowry Hotel.
16-20—Detroit, Mich., Highway and Builders Congress.
19—Oklahoma City, Okla., Oklahoma Petroleum Marketers Association.
24—New York, Oil Trade Association of New York, Waldorf-Astoria Hotel.
25-26—Huron, S. D., South Dakota Independent Oil Men's Association, Marvin Hughitt Hotel.
27-28—Milwaukee, Wis., Wisconsin Petroleum Association, New Pfister Hotel.
28-Feb. 4—Chicago, Ill., National Automobile Show, Coliseum.

February

7-8—Des Moines, Iowa, Iowa Petroleum Marketers Association, Hotel Fort Des Moines.
15-17—Columbus, Ohio, Ohio Petroleum Marketers Association, Deshler-Wallick Hotel.
20-23—New York, A.I.M.E. Annual Meeting.
21-22—Louisville, Ky., Kentucky Petroleum Marketers Association, Brown Hotel.

March

23-25—Houston, Tex., eighteenth annual meeting, American Association of Petroleum Geologists. Society of Economic Paleontologists and Mineralogists, seventh annual meeting. Society of Petroleum Geophysicists, fourth annual meeting, Rice Hotel.
26—Washington, D. C., American Chemical Society.

April

5-6—Hot Springs, Ark., Western Petroleum Refiners Association.
13-15—Tulsa, Petroleum Industry Electrical Association.
20-21—Cleveland, Ohio, National Petroleum Association, Cleveland Hotel.

May

(?)—Tulsa, Natural Gasoline Association of America.
17-18-19—Tulsa, American Petroleum Institute Mid-Year Meeting. Mayo Hotel.
18-19—Roanoke, Va., Virginia Oil Men's Association, Patrick Henry Hotel.

June

12-16—Chicago, Ill., tenth annual meeting, American Oil Burner Association, Stevens Hotel.
26-30—Chicago, Ill., annual meeting, American Society for Testing Materials, Stevens Hotel.

October

24-26—Chicago, Ill., fourteenth annual meeting, American Petroleum Institute.

December

4—Fourteenth Exposition of Chemical Industries.

Balancing of supply and demand is the way to bring prosperity in the oil business, said Walter C. Teagle recently

More Dubbs cracking on one side of the scale and less crude production on the other

That's the way to balance the industry—and make profits

Dubbs cracking always pays—and the more you Dubbs crack the bigger your pay

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor

French Refineries Are Handicapped by Limited Local Market for Fuel Oil, Gas and Coke

By F. T. KAPCEVITCH
Engineer E.T.Lg.

The character of future refining operations in France will be influenced most by the requirements of the local oil market. In France, as in the most part of other industrialized countries, gasoline is the major product, the consumption of which is increasing markedly. From the data below it may be seen that the gasoline consumption for the past year is more than half of the entire petroleum products consumed in France.

Products[1]—	1931 Thous. tons	1931 Per cent
Gasoline	2,249	58.5
Lamping kerosene	201	5.2
Lubricating oil	260.5	6.9
Gas oil	305	8.0
Fuel oil	648	16.5
Road oil	139	3.6
Residues	18.5	0.5
Total	3,821	100.0

[1]The Pechelbronn Co. excepted.

Cracking received a very extensive application from the beginning of the oil industry's development here, and its importance can but grow with the further constructions. The following factors favor extension of cracking: (1) The continuous increase of the gasoline consumption and the higher antiknock gasoline requirements; (2) the absence of a market for all of the heavy residues, and (3) the desire to minimize the crude imports. With the daily crude capacity of refineries to be constructed and those actually under construction in France approximating 120,000 bbls. daily, the cracking capacity is expected to reach 40,000 to 50,000 bbls.

The decree regulating the volume of crude to be imported by the respective companies follows:

1. The Standard Franco-Americaine de Raffinage, a branch of the Standard Oil Co. operating a complete refinery at Port Jerome, is allowed about 1,000,000 tons (annual capacity 7,000,000 bbls.).

2. The Societe des Petroles Jupiter, a branch of the Royal Dutch Co., operating a refinery at Petit-Couronne and a skimming and cracking plant at Pauillac, may import a total of 750,000 tons (annual capacity 5,250,000 bbls.).

3. The Societe Generale des Huiles de Petroles, a branch of the Anglo-Persian Co., operating a refinery at Courchelettes and a skimming and cracking plant at Lavera-Martigues, may import for running a total of about 450,000 tons (3,150,000 bbls. annual capacity).

4. The Societe de Raffineries of the Vacuum Oil S.A.F. and the Compagnie Industrielle des Petroles, operating a refinery and a skimming and cracking plant at Frontignan, may run a total of 360,000 tons (annual capacity 2,520,000 bbls.)

5. The Compagnie Francaise de Raffinage, with a refinery at Gonfreville and at Martigues, may import 950,000 tons (annual capacity 6,650,000 bbls.).

6. The Societe d'Exploitation Minieres de Pechelbronn, operating a refinery at Merkwiller and a skimming and cracking plant at Saint Marc, is allowed to run a total of 180,000 tons (annual capacity 1,260,000 tons).

7. The Raffinerie des Petroles du Nord, operating a refinery at Dunkerque, 280,000 tons (annual capacity 1,960,000 bbls.).

8. The Societe des Consommateurs de Petrole, operating a refinery at Donges, 40,000 tons (annual capacity 280,000 tons).

9. The Compagnie des Produits Chimiques et Raffineries de Berre, operating a refinery at Berre, 376,000 tons (annual capacity 2,630,000 bbls.).

10. The Societe de Raffineries de Petrole de la Gironde, operating a skimming and cracking plant at Bec-d'Ambes, 270,000 tons (annual capacity 1,890,000 bbls.).

11. The Societe Brest-Port-Petrolier, operating a skimming and cracking plant, 200,000 tons (annual capacity 1,400,000 bbls.).

At present about one quarter of the crude capacity allowed by this decree is already in operation and about half of it is in the process of construction. The last delay for the beginning of the actual operation of all the above-mentioned refineries was fixed at October 1, 1934.

Among the different process problems which can be foreseen now, but which will become very actual in the near future, the following should be pointed out: (1) The overproduction of the fuel oil and (2) the economic utilization of the by-products of the cracking process.

In spite of the increasing consumption of fuel oil, in the future, with the operation of all the refineries now under construction, the large quantities of these products will be in excess of the national market. Also there is scarcely any chance the excess may be exported to neighboring countries. Considering the production cost in France and in the oil-producing countries respectively, the French oil industries can never become dangerous competitors.

Utilization of Gas

Some very special difficulties will arise with the marketing of the heavy fuels. After having fixed the contingency of the products to be imported[2], the French "Office National des Combustibles Liquides" has left the problem of the fuel oil open, abandoning its solution to the oil companies themselves. As stated above, the immediate result of such a solution would be a considerable extension of the cracking process, but the cracking process itself would only contribute to the increase of heavy residues, gas and coke, the first ones being hardly useable. However, because of the favorable locations of refineries in industrial centers, the practical utilization of gas and coke seems to be a possibility. Among the gas consumers could be the town gas companies, who might use the refinery gas as a component to be mixed with low thermic water-gas or light-gas. It may also be sold to industrial concerns.

[2]Gasoline, kerosene, lubricating oil and gas oil.

Besides, for the remotely situated centers the marketing would be possible too; the compressed gas could be transported in cylinders. The sale of such a gas might be profitable even at present, when it is imported from abroad, but in a very limited quantity. It would be interesting, perhaps, to compare the gas prices, as charged by the companies in the larger cities, namely 4 cents (1 franc) a cubic meter, with the cost of cracking gas, burned under the boilers, in the refineries, and having a thermic capacity 250 to 300 per cent of the ordinary utilities gas, which costs from 0.4 to 0.8 cents (0.10 to 0.20 francs).

The possibilities for the sale of oil coke of high quality (low ash content and low sulphur content) can still be considered as rather favorable. Certainly, in future, considering the impossibility of selling the heavy residues or transforming them in asphalts, the coking process (as it is done in United States) would facilitate a means of disposal.

In connection with the cracking problem and that of process direction the extension of the gas oil market is to be foreseen. The consumption of gas oil in France for the last three years shows a considerable increase. The annual increase of the use of gas oil is especially noticeable in small industries, bakeries, workshops, heating installations, etc., and also as motor fuel.

The last salon of motor trucks in Paris contributed to the development of an exceptional interest paid to the utilization of Diesel type of motors in trucks. Almost all the firms have exhibited some truck models using the Diesel engine.

All the engines are provided with a pump for the injection of fuel (Bosch system) which, in spite of a wide regulation, remains very sensitive to the change in the viscosity of the fuel.

In spite of a great success obtained by the Diesel engines in France, we must not forget that most of the economy obtained from the use of these engines comes out of the difference existing between the prices of gasoline and gas oil. This difference in price results mainly from the very fact that gasoline, considered as the principal motor fuel, supports a very high tariff and taxes, while gas oil is but slightly taxed. The price of heavy gasoline in France (in retail trade) reaches 1.40 francs a liter, in comparison with that of gas oil of 0.50 francs, or a difference of 300 per cent. In the following table the prices of heavy gasoline and gas oil are given:

Cost, duties and taxes:	Francs per hl.— Heavy gasoline	Gas oil
Cost C.I.F. in Rouen	31.15	31.40
Duties and taxes	95.75	3.90
1. Custom duties .. 44		1.50
2. Home tax 18		....
3. Mending of roads tax 12		....
4. Super tax of equalization[3] etc. 10.40		....
The sale expenses, profit, etc.	13.10	24.50
Total prices	140.00	50.00

[3]This tax was introduced by the law of July 4, 1931, with the purpose of protecting French wine making.

From the above table we can easily see that the enormous difference of prices is caused by quite an artificial customs duty. Probably the gas oil will be, later on, hit with the same duties and taxes which now burden gasoline, and consequently the possibilities of the economical use of Diesel engines will also be reduced.

Thus we may believe that the predominating position now occupied by gasoline will be retained for many years to come, and the conquest of a section of the market by gas oil is far from creating an impediment for the normal development of the cracking process in France.

As to the eventual extension of gas oil utilization in public utilities, etc., here, the ways of gasoline and those of gas oil do not cross, and the increase of demand for gas oil can but indirectly influence the cracking process by forcing it to adopt some heavier residual product.

Experience has proved that a temporary success obtained by certain processes with the help of artificial protective measures is not lasting. Although it hinders the development of some vital processes, basic economical tendencies are the deciding factors. As a typical example of the above, the large introduction of gasoline-rating motor trucks and tractors tried in France can be given: These engines use the "national" hard fuel, which is much cheaper than the foreign liquid fuel. But in spite of severe protective measures, the number of such engines, in work, have decreased, while the quantity of units using liquid imported fuel is increasing.

Immediate Prospects

To resume the actual conditions of the oil industries in France and the marketing possibilities existing in the same country, the following conclusions have to be made: (1) All efforts to establish a definite specification of the "national liquid fuel" gave practically no important results. (2) At present the greatest attention is paid to the problem of oil supply. (3) Because of the absence of national oil resources, control of the Messopotamian oil fields becomes the main factor in French oil policy. (4) The national oil industry is being now strongly developed (construction of refineries, cracking plants, etc.). (5) The general direction of the refining process will correspond to the existing requirements of the world's oil market; gasoline is, and will most probably remain, the principal product in this market. (6) An extension of the cracking process should be expected. (7) In spite of the progress of the heavy oil engine, it is still far from replacing the spark-ignition engine.

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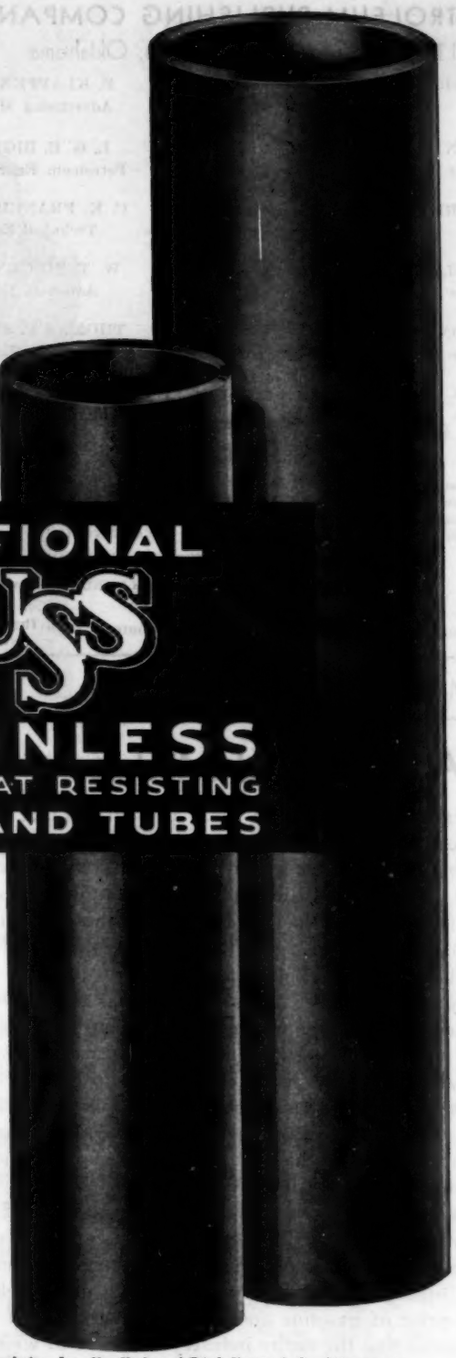

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A Neglected Market

Almost ten years ago, (August 16, 1923) The Oil and Gas Journal published an appeal to the oil industry to meet the problem of overproduction by promoting the sale of furnace oil for domestic heating.

In that article, "Petroleum's Richest Treasure Untouched", it was pointed out that first kerosene had given us light, then gasoline had given us power, but the greatest gift, the use of heating oil for domestic purposes, had not been exploited.

The customary explanation or excuse offered was that the use of oil for fuel was an inferior use, lowering it to competition with coal, when it might be converted into superior or better priced products.

But progress along that line has not been able to dispose of the ever increasing supply of crude and today it is gasoline that is the inferior product, third grade gasoline selling in the Mid-Continent and some other areas for less than the prevailing market price for kerosene or any of the better grades of distillates.

While there has been a progressive increase in the yield of gasoline with reduction in gas and fuel oil, stocks of gas and fuel oil remain high. Since gasoline in modern manufacturing operations can be made from all other fractions of crude there is a direct relationship between the price of gasoline and other products and of crude oil. One way of stabilizing the entire industry would be to widen the market for other products.

Articles published recently in The Oil and Gas Journal have indicated a potential market for 300,000,000 barrels of burning oils, and for 35,000,000 barrels of road oils. (S. B. Eckert and A. E. Pew, Jr., November 24, and R. P. Russell and W. V. Hanks, December 1).

In the current issue of The Lamp, published by the Standard Oil Company (New Jersey), it is said "the market for domestic oil heating, the greatest contribution to human comfort and convenience, has hardly been furrowed".

It urges, as The Oil and Gas Journal did a decade ago, that closer co-ordination must be sought among oil companies, burner manufacturers and regulatory bodies and suggests the creation of an oil burning institute embracing both industries where the problems of burner design and fuel specifications could be worked out, as the refiners and automotive engineers have co-operated on motors and motor fuel, assuring the most satisfactory service to the consumers and thereby stimulating the use and sale of burners and burning oils.

This would be a direct and practical step towards a solution of the overproduction problem. The 775,000 oil burners now in use consumed 40,000,000 barrels of fuel oil in 1931. With oil burners for domestic heating priced in line with electric refrigerators it is calculated there would be a market for 8,000,000 burners and with the average consumption 40 barrels per year, the total market would be 320,000,000 barrels.

With a further simplification of burners, improved automatic control and a more constant level of furnace oil prices the public can be induced to turn to oil heating.

Many refiners have hesitated to interest themselves in the oil burning market because of their concentration on gasoline and the supposition that the burner market might be subject to wide fluctuations as the price of oil rose or fell. But with the present assurance of a surplus of available oil there should be less risk in making longer contracts that would satisfy the potential burner buyer of the permanency of his fuel supply at a reasonable cost.

As the most modern types of cracking units come into more general use throughout the industry, and when hydrogenation is adopted on a wider scale, less distillate fuel oil, as The Lamp points out, will be required for cracking, leaving a greater supply for oil burners.

Next to the domestic oil heating market the potential market for road oils is most promising for expansion.

Of the 3,000,000 miles of roads in the country less than 20 per cent are paved. Two-thirds of the 314,000 miles of state highways are unsurfaced. Of the 2,710,000 miles of local roads 2,225,000 miles are unsurfaced dirt roads.

The cost of state highway construction, ranging from $30,000 to $60,000 a mile and diversion of the gasoline tax to other purposes is tending to decrease appropriations but there is a less expensive mode of construction that can be resorted to—what is termed stage construction, the building up of roads from oiled dirt and gravel highways, particularly on secondary roads.

A first application of 4,000 gallons to a mile will provide a passable road and yearly maintenance at low cost will establish a very satisfactory highway for local traffic.

The price of road oil is now low and labor in need of employment. The extension of oiled roads providing year round highways would increase the consumption of gasoline and motor oil also.

Such roads could be constructed for as little as $1,500 a mile, of direct benefit to the farmer who sometimes complains that the expensive main highways are more for the benefit of tourists.

But to get and hold this market two things are necessary. There must be definite specifications that will ensure satisfactory service. Inferior products must not be sold. Ordinary fuel oil will not meet the need. Road oil must be manufactured to meet the requirements of differing soils. Highway construction must provide proper drainage, not allowing the oil to pool.

By stage construction roads could be kept adequate to traffic growth. Hauling costs would be reduced where expensive highways are out of the question.

While running cracking units to make antiknock gasoline, refiners in the same operation, can produce road oil or asphalt as a by-product. With 50 per cent gasoline yield 25 to 30 per cent road oil or asphalt can be recovered and offered for secondary road construction.

When maintenance costs approach $700 or $800 a mile it is more economical to surface with petroleum residuums which can be maintained at this cost and give a superior road while at the same time laying a foundation for a high class highway from successive applications of the residuums.

The possibilities of pushing sales of burning oils for domestic heating and of road oils for highway construction and maintenance are real and substantial, unlike the mirage of increased volume of gasoline sales by wasteful competition.

Serious consideration to these possibilities would be a great help to disposing of our overproduction of crude and in stabilizing the entire market structure.

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PETROLEUM REFINING PLANTS

Price Reductions in Oklahoma Market Include Kerosene, Distillate, Fuels and Gasoline

By C. O. WILLSON

With a continuance of slow trading in the spot market and no change in the crude oil situation, prices on many refined products continued to decline in Oklahoma (Group 3) over the past week. A few refiners were pursuing a policy of "unloading" inventories, apparently in anticipation of lower rather than higher prices on products which they had been holding in storage.

This condition for the first time, developed in the case of kerosene, distillate, gas oils and some grades of fuel oils. These products for several months have occupied a much stronger market position than has gasoline but over the past week, several refiners were willing to offer substantial price concessions in order to secure a share of the new business available. This situation developed despite the fact that available data show, that stocks of all these products in the Mid-Continent are much lower than they were a year ago and current production is also less. The warm weather of the past two weeks in the consuming territory was a factor in the decision to offer more furnace oil, some sellers professing to believe that the coldest weather of the winter season was over, which meant that the peak demand for furnace oils was past. Several sellers offered material from one-fourth to one-half under the prices prevailing the first few days of January. Other refiners are not lowering their prices believing the present slowup in demand is temporary with cold weather over the next two months in the middle western states certain to result in a large demand.

So far as the gasoline market is concerned, low priced materials from inland Texas refineries dominated the Mid-Continent and Middle West markets and led in all price declines. Sales of low octane gasoline coming from East Texas and Texas Panhandle refineries under 2 cents per gallon basis Group 3 were reliably reported during the week and Oklahoma refiners to meet this competition dropped their prices on the low octane U. S. Motor to a low of 2¼ cents in sales to the trade.

Several Investigations

Several companies including both producing and refining organizations since the general crude oil price cuts in December, have made independent investigations of conditions in the Mid-Continent for the purpose of obtaining information which would be an aid in gauging the probable markets for crude oil and refined products over the next several months. The reports of these investigations are in general agreement as to causes and the necessary remedies to prevent further collapse in price structures. These reports show that there is considerable crude oil being produced in violation of state proration orders. This crude oil invariably is being sold under the market and finds its way to refinery markets at prices so low that it is impossible for refiners paying posted schedules to compete.

In East Texas, it was found, that refinery operations in most cases are based on crude oil costing from 20 to 35 cents per barrel at the refineries. Some of this crude oil was coming from wells, the owners of which have not been able to obtain pipe line connections from large buyers paying posted prices. This particular condition has been remedied over the past few days as a plan has been worked out offering connections to all wells. Competent investigators, however, state that simply providing connections to all well will not solve the East Texas problem. They state that considerable quantities of crude oil are being produced in violation of state proration orders. In some cases, wells have connections and their owners sell the small allowable production to large buyers at posted prices and much larger quantities, secretly produced, to local refiners at any prices obtainable. In some cases this excess oil is being produced without the knowledge

Refined Market Barometer

Tank car prices on all grades of motor fuels were reduced in practically all refining centers over the past week. The trend toward lower tank wagon and service station prices spread to include the entire consuming territory with the exception of the West Coast States. For the first time in several months weakness was apparent in burning oils and fuel distillates at interior points. At coastal points the markets for these products were generally steady. Heavy fuels unchanged. The most important development in lubricants was an advance in pale and red neutral oils at the Gulf Coast. Paraffin base lubricants were generally slow. Wax prices advanced in East.

Mid-Continent—Refinery gasoline prices decline rapidly due to slow demand and uncertainty regarding crude oil situation. Natural gasolines slow. General weakness apparent in kerosene, distillate, gas oils and some grades of residual fuels. Lubricants slow. Wax unchanged.

East Coast—Gasoline tank car and station prices lower. Kerosene firm. Lubricants dull. Stronger market for wax and prices higher. Bunker fuels steady.

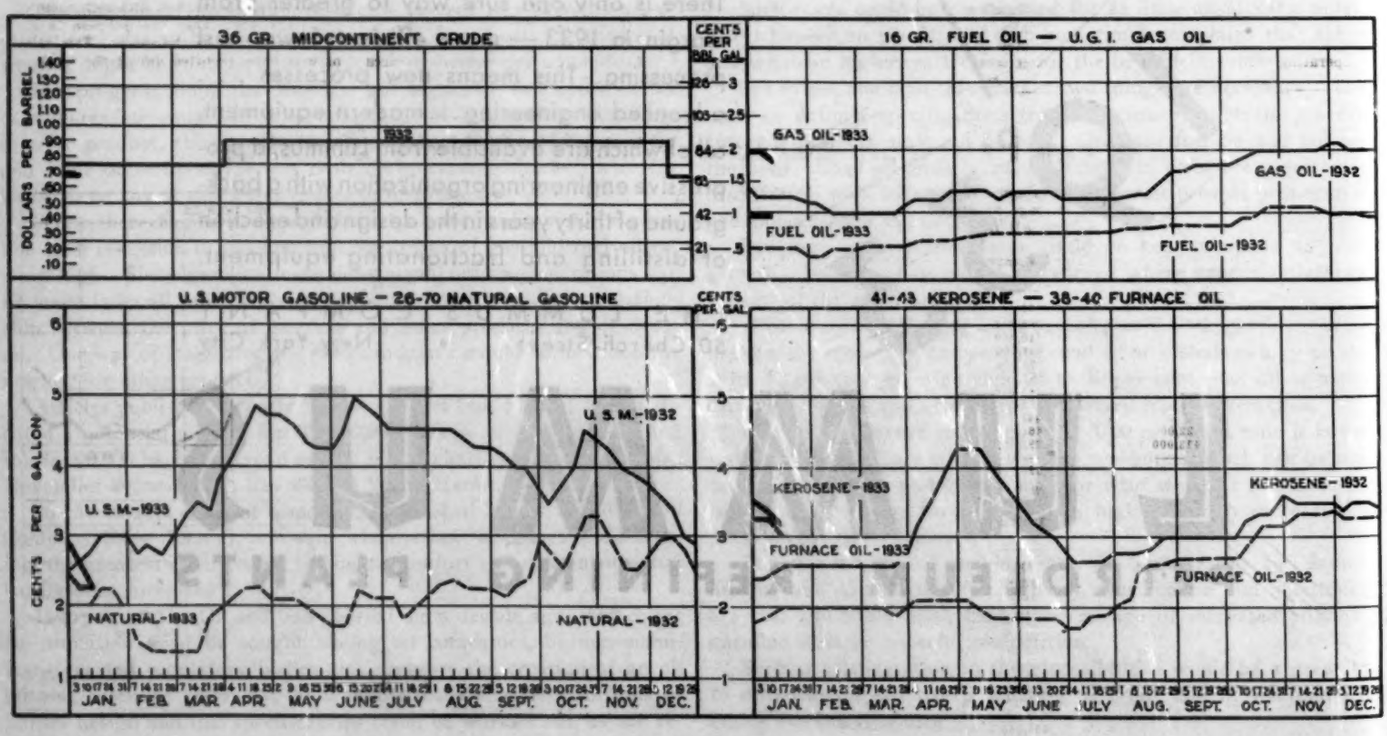
Pennsylvania—Motor fuels weak. Slow movement of steam refined stocks and bright stocks. Fair demand for low cold test neutrals. Kerosene steady.

Gulf Coast—More gasoline offered and prices lower. Kerosene also more freely available. Fuels unchanged. Prices on pale and red neutrals higher.

California—Gasoline market weak and prices lower on some grades. Other products unchanged.

Chicago—Gasoline prices lower. Kerosene and distillate sluggish and prices reduced on all grades. Better tone to special naphtha markets. High gravity, zero fuel oils unchanged.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



of lease owners, crooked employes being responsible and deriving whatever profits are obtainable from the illegal operation. Not all of this illegally produced crude oil is refined in the field, some of it being sold to outside refineries.

In another Texas area a case is cited in which through injunctions granted by lower courts and not yet passed upon by the Supreme Court of the United States, wells are being allowed to produce practically wide open while adjoining leases are prorated. The large production is being run to a refinery owned by the company and the products sold at low prices over an area extending from the Mid-Continent to the Canadian border.

The conditions in East Texas and some of the other prorated fields are not new, having existed in one form or another from the time the proration plan of handling flush fields was conceived. For a long time, large and small companies paying posted schedules for crude oil, and endeavoring to obtain prices for their refinery products in line with the cost of raw material, ignored these operations. However, as explained by one major executive, these operations based on low prices have at last worn down the resistance of all competition and they are now the controlling factor in both the crude oil and refinery markets. The conclusion of this executive and others is that either these low priced operations must be eliminated through strict enforcement of proration rulings or all markets will be reduced to the low levels extending from the crude oil at the wells to the prices paid by consumers.

With this conclusion in mind refiners are watching the efforts being made to cope with conditions in Texas, and in the meanwhile they are endeavoring to prevent additional declines in prices for their refinery products until it becomes apparent whether or not existing conditions in the industry can be remedied.

Statistical Situation

Attention is called to the accompanying table which was derived from the latest report of the Bureau of Mines covering November operations for 1932 and 1931. The significant feature of the comparisons for the two years is that at the end of November, 1932, inventories of all refined products were lower than they were the year previous.

This condition has been brought about largely through reduced crude oil runs to stills, the charge of raw material for November, 1932, being 65,000 bbls. daily less than in November, 1931. This relative operating situation obtained over the greater part of 1932 and made possible the improved inventory situation.

It will be noted that at the end of November, 1932, gasoline inventories at Mid-Continent refineries were approximately 700,000 bbls. less than on the same date in 1931, the largest reduction being in inland Texas. The storage of residual fuel oils at refineries decreased from 6,911,000 to 5,100,000 bbls.

The greatest decrease in stocks has been in kerosene, distillate and gas oils. Kerosene stocks decreased from 795,000 bbls. to 398,000 bbls., a decline of approximately 50 per cent. The decrease in gas oil and distillate at the end of November was approximately 60 per cent. Stocks of petroleum wax decreased from 5,324,000 pounds to 3,689,000 pounds.

These low inventories account for the satisfactory market for kerosene, distillate, gas oil and some grades of high gravity residual fuel oils. In curtailing their crude oil runs to stills to improve the gasoline market, refiners in the Mid-Continent and many other areas curtailed their supply of several other products to the point where a healthy market situation developed although there was little or no change in the demand when compared with the previous year. While the gasoline market has not reflected the improved stocks, the fact that the latter are low for this season of the year does show that refiners are in a position to take advantage of any improvement in the crude oil situation.

Mid-Continent Refinery Operations

Table derived from latest report of Bureau of Mines showing daily crude oil runs to stills and stocks of refinery products at end of month. Data in barrels except wax in pounds.

	November, 1932						
	Daily crude to stills	Gasoline	Kerosene	Gas oil and distillates	Residual fuel oils	Lubricants	Wax (lbs.)
Okla., Kans., Mo.	218,300	3,278,000	310,000	1,211,000	2,223,000	561,000	3,511,000
Texas inland	138,860	1,643,000	66,000	360,000	2,451,000	84,000	178,000
Ark. and La. inland	52,300	239,000	22,000	107,000	426,000	11,000	.....
Total	409,460	5,055,000	398,000	1,678,000	5,100,000	656,000	3,689,000

	November, 1931						
	Daily crude to stills	Gasoline	Kerosene	Gas oil and distillates	Residual fuel oils	Lubricants	Wax (lbs.)
Okla., Kans., Mo.	265,860	3,243,000	645,000	2,758,000	2,920,000	674,000	5,241,000
Texas inland	159,000	2,279,000	133,000	725,000	3,405,000	79,000	83,000
Ark. and La. inland	52,130	190,000	17,000	187,000	586,000	16,000	.....
Total	476,990	5,712,000	795,000	3,670,000	6,911,000	769,000	5,324,000

It will be noted that at the end of November, 1932, gasoline inventories at Mid-Continent refineries were approximately 700,000 bbls. less than on the same date in 1931, the largest reduction being in inland Texas. The storage of residual fuel oils at refineries decreased from 6,911,000 to 5,100,000 bbls.

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Gasoline and Naphtha

Gasoline and naphtha as well as practically all other refinery products were quoted over wide price ranges during the past week. There are still several refiners in Oklahoma quoting 3¼ cents for the low octane U. S. Motor gasoline, 3¾ cents for the regular grade and 4¼ cents for the premium grade. These prices can be lowered at least 1 cent a gallon in purchases from other refiners in Oklahoma and as previously explained even lower prices are available from inland Texas refiners quoting on a Group 3 basis.

With the depressed market there is less inclination to recognize the old price differentials of three-eighths or one-half cent between the low octane and regular grade gasolines with a five-eighths or three-fourths cent premium for the premium grade. A few refiners whose prices on low octane material are high are offering the regular grade at prices one-fourth cent above the third grade. As additional refiners install suitable equipment the production of regular and premium grades is increasing and the tendency is to narrow the price spreads. Three or four of the small plants in East Texas have installed small cracking units and they are also offering a gasoline in excess of 60 octane rating. Some of this material is offered as low as 2¼ cents basis Group 3.

A spot sale of 390, 375 and 360 end-point gasoline is rare in Oklahoma. Prices quoted are nominal.

Natural Gasolines

Natural gasolines are not active but prices the first of the week on all grades were about the same as a week ago. The 26-70 grade was firm in Texas at 2⅛ cents with less activity in Oklahoma at a price of 2¼ cents. There is little difference in prices for vapor pressures ranging from 20 to 14 with 11 pound quoted by marketers at 3¼ cents.

Kerosene and Distillate

Kerosene prices dropped rapidly during the week. From a low of 3⅝ cents prices dropped to 3⅛ cents with resale material available at 3 cents. The demand has not been active and due to the low prices prevailing for gasoline, several refiners have increased their output of kerosene.

The same situation applied to furnace oil distillates, all grades of which are quoted at practically the same price levels. East Texas prime white distillate is available at a low of 3 cents and in Oklahoma sellers have material as low as 3⅛ cents. The same prices are being asked for grades down to 32 gravity. Even the 32-36 zero, which has been very scarce for several months, was available from several sources over the week.

Fuel Oil and Gas Oil

U.G.I. gas oils and cracking stocks are from one-eighth to one-fourth cent lower than last week, sales being reported as low as 1¾ cents. Most of the low prices, however, are coming from Texas.

In regard to fuel oil prices and to a lesser extent all furnace oil material there is considerable confusion as regards specifications. The recent reductions in posted oil prices have made the low gravity crude oils attractive as furnace oil material. In order to obtain a cheap product which can undersell the regular high gravity fuel oil and distillates, various blends with crude are being used. In many cases these blends are objectionable in one or more specifications. Many have high viscosity and contain water or excessive sulphur. Refiners who are able to sell a straight refined product with a viscosity under 100 are still able to obtain good prices for grades ranging from 24 to 30 gravity. At the same time there are blends having these gravities which are available at much lower prices than previously prevailed. Prices quoted on 28-30 zero ranged from 90 cents to $1.05. Low gravity fuel oils of suitable viscosity and low sulphur content are still bringing a low of 40 cents in the Oklahoma market.

Other Products

No price changes were reported in lubricants and wax. The lubricants from the lowest grade cylinder stocks to the best grades of bright stocks are not active in the domestic market, although some of the trade state that the dullness is entirely explained by the season. Few sales of wax were reported during the week.

American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

Week Ending January 7, 1933, Compared to Week Ago

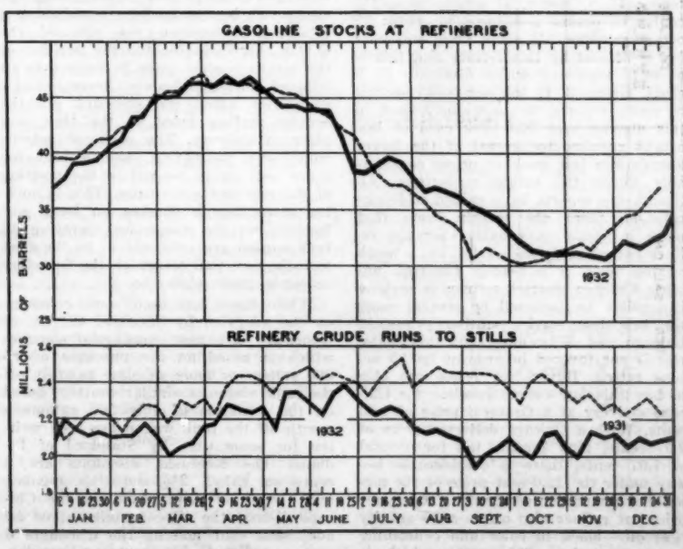
	Week ending January 7				Week ending December 31, 1932			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	99.1	409,000	12,723,000	7,936,000	99.1	435,000	12,683,000	8,157,000
Appalachian	95.0	78,000	1,740,000	810,000	95.0	69,000	1,809,000	823,000
Ind., Ill., Ky.	97.5	252,000	7,040,000	3,341,000	97.5	246,000	6,963,000	3,387,000
Okla., Kans., Mo.	84.9	175,000	4,687,000	2,735,000	84.9	188,000	4,845,000	2,755,000
Inland Texas	56.4	94,000	1,499,000	2,151,000	58.4	77,000	1,544,000	2,045,000
Tex. Gulf	97.7	375,000	6,350,000	7,441,000	97.7	422,000	6,046,000	7,595,000
La. Gulf	97.3	75,000	1,440,000	2,583,000	97.3	71,000	1,392,000	2,652,000
N. La. and Ark.	88.5	40,000	313,000	449,000	88.5	42,000	304,000	473,000
Rocky Mtn.	90.8	22,000	1,131,000	465,000	90.8	23,000	1,142,000	466,000
California	94.6	413,000	15,326,000	99,792,000	94.6	435,000	15,610,000	99,283,000
Total U. S.	91.6	1,933,000	52,249,000	127,693,000	91.6	2,011,000	52,339,000	127,636,000

Total motor fuel stocks Bureau of Mines basis January 7—53,350,000 bbls.

Week Ending January 7, 1933, Compared to Year Ago

	Week ending January 7				Week ending January 2, 1932			
	(1)	(2)	(3)	(4)	(1)	(2*)	(3)	(4)
East Coast	99.1	409,000	12,723,000	7,936,000	100.0	452,300	4,478,000	8,038,000
Appalachian	95.0	78,000	1,740,000	810,000	91.8	75,100	1,326,000	1,581,000
Ind., Ill., Ky.	97.5	252,000	7,040,000	3,341,000	98.9	292,700	4,416,000	5,519,000
Okla., Kans., Mo.	84.9	175,000	4,687,000	2,735,000	89.5	210,300	3,311,000	4,279,000
Inland Texas	56.4	94,000	1,499,000	2,151,000	....	101,700	1,789,000	2,987,000
Tex. Gulf	97.7	375,000	6,350,000	7,441,000	99.8	418,600	6,178,000	8,517,000
La. Gulf	97.3	75,000	1,440,000	2,583,000	100.0	116,700	1,319,000	3,515,000
N. La. and Ark.	88.5	40,000	313,000	449,000	....	53,900	128,000	828,000
Rocky Mtn.	90.8	22,000	1,131,000	465,000	89.4	21,700	1,736,000	737,000
California	94.6	413,000	15,326,000	99,792,000	97.1	440,700	13,408,000	96,476,000
Total U. S.	91.6	1,933,000	52,249,000	127,693,000	95.7	2,207,700	37,989,000	132,477,000

*Stocks at refineries only.



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

Many in Chicago Hopeful on Tank Car Markets; Condition Believed in Line for Betterment

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, Jan. 9.—Many in the Chicago district are inclining to the belief that gasoline tank car markets are in line for betterment by the middle of the month no matter what happens in other departments of the industry. There is some indication that jobbers are beginning to feel that it is practically impossible to make a bad buy on the current quotations offered, and this attitude is reflected in 5 and 10-car purchases by the larger jobbers who are in good credit standing.

While prices quoted by small refiners in widely separated Texas points and in Oklahoma last week to Chicago district resellers reached a low of 2 cents on the low octane U. S. Motor, 2¼ cents on the middle octane U. S. Motor, and 2⅝ cents on gasoline for which an octane rating of 70 is claimed; the 41-43 water white kerosene went down to 3 cents on a par with a 38-40 light straw distillate, and a black 38-40 distillate was offered at 2⅞ cents, the prices were subject to immediate wire and within 24 hours most of the quotations were advanced an eighth to a quarter of a cent. The following prices were made for resale by a Texas Panhandle refiner, and matched, generally, by marketers operating from East Texas and Fort Worth districts: Low octane U. S. Motor, 2⅛ cents; middle octane gasoline, 2¼ cents; 60-62 400 endpoint, 2⅝ cents (said to be middle octane); a 400-410 endpoint gasoline of 65-70 octane, 2¾ cents; 64-66 375 endpoint gasoline, 2¾ cents; 68-70 350-360 endpoint gasoline, 3⅛ cents; 41-43 water white kerosene, 3¼ cents; light straw zero distillate, 3⅛ cents, and 24-26 90 cold test fuel oil, 37½ cents a barrel. All prices are Group 3 basis, equalized.

East Texas Refiner Quotes Prices

One of the larger East Texas refiners is quoting the following prices to the trade: U. S. Motor, 57 octane plus, 2¼ cents; 65 octane gasoline, 2⅝ cents; 72 octane gasoline, 3⅛ cents. Only one more cut is offered by this refiner and this is a 38-40 standard white distillate at 3 cents, Group 3. It has not been possible to verify reports that a major refiner in this district sold 200 tank cars of low octane gasoline to several of the larger distributors last week at prices considerably under the ruling quotations. Although the reports have gained wide circulation, there are certain facts that make it highly improbable that the refiner named made such sales. On a much smaller scale, it is readily admitted, another Chicago district refiner is making it possible to undersell by several cents the new low service station prices in Chicago and Milwaukee, but this material is not favored because of its 35 octane rating. Buyers for resale are able to buy this low octane gasoline for Chicago delivery at a Group 3 price of 1.63 cents. With a Chicago delivered price of 3.07 cents, plus 4 cents tax for a total of 7.07 cents, there is considerable leeway under the 12.6-cent price of the major and semimajor companies. This same price cut refiner also offers a 35 gravity "gas oil," black in color and containing 1 per cent b.s. and water, which is claimed to have a flashpoint of 150, fire at 165, initial at 253, and endpoint at 673, at a price of 2.23 cents, Group 3, Chicago.

Service Station Situation

The service station and tank wagon price cuts recently initiated by Sinclair in Ohio and the Standard of Indiana territory were laid to cuts in crude oil prices and crude oil "bootlegging" in Oklahoma and Texas. In the announcement from the Sinclair offices it was stated that "until the trend of crude prices is reversed, proration orders are honestly and effectively enforced, if that is possible, demoralized gasoline prices will continue." In the Standard of Indiana territory all grades of gasoline were reduced 1 cent, both service station and tank wagon, with the exception of three points: Detroit, St. Louis and St. Joseph. At many of the points where third grade gasoline was reduced to ridiculous figures, trackage station operators and other price cutters continue to undersell from half a cent to 2 cents. Not including the city, county, state and Federal taxes, the following were the prices of major and semimajor companies Monday on the third grade gasoline: Chicago, 8.6 cents (one independent is as low as 6 cents); Peoria, 9 cents; East St. Louis, 6.1 cents; St. Louis, 6 cents; St. Joseph, 5.9 cents (with some price cutters at 4.9 cents); Kansas City, 7 cents; Minneapolis, 8.4 cents (with price cutters at 8 cents); Evansville, 8 cents; Davenport and Sioux City, 8 cents; Des Moines, 7.9 cents, and Milwaukee, 8.3 cents (with price cutters at 7.3 cents). In Kansas price cutting has been given new impetus, and the third grade service station postings, minus taxes, are reported ranging from 5 to 6 cents.

The comparatively close relationship between gasoline tank car delivered prices and the service station postings of price cutters, points clearly to the necessity of reorganizing the marketing programs of those companies which have been giving their buyers wider and wider marginal guarantees and larger quantity discounts off the service station prices. In fact, several of the major and semimajor refiners and marketers say it is imperative some new arrangement be made with buyers, such as establishing a relationship between the size of the Q.D.A., for instance, and the position of the service station price in respect to an adopted normal schedule. Several major companies allow the discount off the service station price at the time and place of delivery. The proposed scheme would cut the Q.D.A. half a cent for every cent under normal in the position of the service station price. This is nothing more than a shading on local protection, but the companies operating on such a plan are reluctant to be the first to make any changes which the franchise accounts might object to.

While there has been some comment on the adoption by Standard Oil Co. of Nebraska of a new commercial contract which is based on the purchase of 1,000 gallons or more gasoline monthly off the tank wagon, a similar contract based on the purchase of only 500 gallons a month off the tank wagon has been written for some time by Standard of Indiana. The Nebraska discounts are 3 cents on Ethyl, 2½ cents on regular, and 1 cent on third grade. In the Chicago district the oil companies allow an additional cent making the discounts 4 cents on Ethyl, 3½ cents on regular, and 2 cents on the third grade.

The lower gasoline service station schedules have not eliminated the 1 and 2-cent discounts made at service stations of several major and semimajor companies who are not writing the 1-cent commercial discount service station contracts. No discounts are made on the third grade gasoline, but the regular grade is cut from the regular price posted at the station if the motorist requests such a reduction. It is probable that the 2-cent discounts will be discontinued shortly as such a reduction lowers the regular grade price to half a cent under the third grade price. Some of the larger marketers say that they are getting hundreds of requests for still lower service station prices at points throughout the territory, and they report it is impossible to say definitely what prices are actually in effect in three-fourths of the entire territory.

The oil industry is directly and indirectly the object of various legislative attacks, and among the important moves made in behalf of the industry is the opening in Chicago of the Highway Users Conference of Illinois. The object of the conference is to integrate the interests of oil companies, automobile manufacturers, bus and truck transportation systems and allied groups. The warfare being carried out on the Indiana-Kentucky border is just one of the harassments the oil business is experiencing. It is said that a team of mules can transport 35,000 pounds of goods on the Kentucky highways while a truck is not permitted to do so. At the new low prices of tank car gasoline the various excise taxes represent 200 per cent and above of the wholesale price.

Gasoline Tank Car Prices

At the current low levels to which the gasoline tank car markets have declined there is slightly more buying on the part of jobbers, although such activity is perceptible only because of the dead quiet which has preceded. Marketers are looking forward to increased jobber business on the theory that the jobber can not expect to get lower prices without a resultant epidemic of refinery shutdowns and consequent sharp price increases. The jobber stands to lose very little if he buys on today's markets, the distributors contend, so if the jobbers have any credit at all they will probably build up their storage with material at rock bottom prices. The readiness of certain refiners last week to move up from their 2-cent U. S. Motor quotations indicates that the refiners are ready to respond with higher prices if they begin to move materials. This augurs that jobber buying may proceed in a rather jerky manner, until the outlook in the crude oil situation is much clearer.

Unlike most periods in the past in which floods of cheap gasoline from the Texas, Louisiana and Oklahoma refining centers caused majors and semimajors to withdraw from the open markets, competition is fairly general on the basis of prices quoted below and which represent reductions of a quarter to half a cent from last week's ruling prices. It will be noted that a differential of only a quarter of a cent is maintained between the low octane (below 57) and the regular grade, while the differential between the regular grade and the premium grade is at least three-eighths of a cent. It may also be said that by far the larger volume of "premium grade" gasoline is moving at the top of the range. The East Texas refiner who is offering 72 octane gasoline to the trade at 3⅛ cents says he is far behind on his shipments.

Monday's prices in the tank car markets were: U. S. Motor, below 57 octane, 2⅜ to 2½ cents; U. S. Motor, 57-64 octane, 2⅝ to 2⅞ cents; U. S. Motor, 65 and above octane, 3 to 3⅜ cents; 60-62 400 endpoint, below 57 octane, 2½ to 2¾ cents; 64-66 375 endpoint gasoline, 3⅜ to 3½ cents; 68-70 360 endpoint gasoline, 3⅝ to 3¾ cents; aviation, fighting grade, of no octane specifications, 4 to 4¼ cents.

Special Naphtha Tank Car Markets

The special naphtha tank car markets are gradually gaining a more even keel. Prices are being leveled up and down so that the materials bear a more logical price relationship in most instances. Certain items seem to be out of line, but special conditions are operating in these cases. The recent slashes in the V.M.&P. and paint thinner grades are responsible for the readjustments noted this week in the light cleaners and Stoddard materials. With quotations on rubber solvent in the Akron and other important rubber sections figuring at 7¾ cents, Akron district delivered, the Group 3 price for the Chicago district has tumbled from the earlier range of 7 to 7¼ cents. Practically all of the producers operating in the Chicago district say the low of the following price ranges represents the absolute minimum for them no matter what happens in the industry. One refiner who produces a large bulk of the special naphthas sold in the territory said their standard of specifications, involving expensive fractionating operations and triple treating costs, will make it impossible for them to remain in the markets, either spot or contract, if prices are lowered.

Monday's special naphtha tank car prices for the Chicago district were as follows: Cleaners' naphtha, 6 to 6¼ cents, a decline from 6⅝ to 6⅞ cents; lacquer diluent, 180-250, 7¼ to 7⅜ cents, a decline from 7½ to 7¾ cents; lacquer diluent, 140-200 (made by two refiners only), 8½ cents, an advance from 8 to 8¼ cents; rubber solvent, 5½ to 6¼ cents, a decline from 7 to 7¼ cents; Stoddard solvent, 5½ to 5¾ cents, a decline from 6½ to 6⅝ cents; petroleum thinner, 4¾ to 5 cents, an advance from 3⅞ to 4⅛ cents; V.M.&P. naphtha, 5¾ to 6 cents, an advance from 5¼ to 5½ cents, and petroleum spirits, 4¼ to 4½ cents, an advance from 3½ to 3⅞ cents. The Chicago, Kansas City and St. Louis district markets are usually considerably lower than most points in the territory. Certain outside points, such as Toledo and Akron, are still more depressed due to special conditions.

Kerosene Tank Car Markets

The kerosene tank car markets continue uncertain, both from the standpoint of supply and of demand. Prices Monday were heard as low as 3 cents in the field, but in the Chicago district the bulk of actual purchases was at the 3¼-cent price. Extremes of the range were 3¼ and 3⅜ cents, on the 41-43 water white material, and 3¼ to 3½ cents on the 42-44 water white kerosene. Buying has been restricted by comparatively mild weather.

Distillates and Fuel Oils

Distillates and gas oils this week reflect increased offerings and slackened

(Continued on Page 55)

Tank Wagon and Service Station Gasoline Prices Lower Throughout the East Coast Territory

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, Jan. 9.—Continued weakness in crude oil markets, coupled with dwindling demand for gasoline along the Atlantic Seaboard and the intensified competition for retail business, resulted in sweeping downward readjustments in posted prices throughout the area during the week, with the reductions averaging 1 cent at all points. The refinery gasoline market held at previous price levels, but the market undertone was distinctly weak and a further cut of one-half to 1 cent in the tank car market appears probable unless the trend in crude oil markets reverses itself.

With the exception of motor fuels, East Coast refined products markets held fairly steady. While the trade has been discussing the possibility of price reductions on bunker fuel and furnace oils, no action developed. On the contrary it appeared that the recent price cuts in crude had come at a time when refiners were planning to advance posted quotations for these oils, and the maintenance of present schedules for some time is believed assured by some refiners. It is pointed out bunker oil is still being imported, at a duty rate of 21 cents a barrel, and that continued movement of furnace oil supplies into the eastern area from California and the Gulf is in progress. Under these circumstances, refiners point out, market conditions do not justify any general lowering of refinery quotations.

Recent price reductions on gasoline in the Gulf export market have improved the outlook for additional motor fuel business with foreign buyers, and the Gulf market is taking on more signs of activity.

Refinery Gasoline

While a little price shading is in progress at principal tank car marketing centers along the Atlantic Seaboard, principal sellers have not revised their posted prices. In the New York Harbor area, refiners are quoting U. S. Motor gasoline at 5¾ to 6 cents in tank cars at terminals, and U. S. Motor gasoline of 65 octane and above at 6 to 6¼ cents, the inside quotation in both instances being posted only by Republic Oil. This company is also the low seller in the Baltimore tank car market, where it posts U. S. Motor at 5½ cents, and gasoline of 65 octane and above at 6 cents, compared with the quotations of 6 and 6¼ cents, respectively, posted by the major refiners distributing at that point. The Charleston, S. C., market holds at 6 cents for U. S. Motor and 6¼ cents for 65 octane and above. Sellers at Boston have now adjusted their prices to uniform levels, with U. S. Motor quoted at 6 cents and gasoline of 65 octane and above at 6¼ cents.

Considerable gasoline from California has moved into the New England area during the past few months, notably at Tiverton, R. I., and Fall River, Mass., and independent marketers handling the Pacific Coast product are extending their influence.

With the position of the tank car market definitely weak, jobbers are averse to carrying large stocks, and business was again along hand-to-mouth lines. With consuming demand at a low ebb, jobbers are content to permit their stocks to run down almost to the vanishing point, just keeping on hand enough for day-to-day requirements, with one or two cars always "rolling."

Steady progress is being made by East Coast refiners in improving the quality of their featured brands, and it is indicated important refinery construction may be looked for in this area during the year as a further step toward increasing the knock rating of principal brands.

Tank Wagon Gasoline

With Consolidated Oil Corp. assuming market leadership, through Sinclair Refining, its subsidiary, eastern gasoline markets were slashed 1 cent on both tank wagon and service station sales, the reductions becoming effective January 4. The Sinclair cut took in its entire territory east of the Rocky Mountains and forced downward revisions on the part of competing companies in the East.

Standard Oil Co. of New York, Inc., operating subsidiary of Socony-Vacuum Corp., was prompt to meet the Sinclair cut in New York and New England, and other leading marketers followed suit. Standard Oil Co. of New Jersey and other marketers in its territory reduced their prices 1 cent on all grades, also effective January 4, and Atlantic Refining Co. and Standard Oil Co. of Pennsylvania took similar action in Pennsylvania and Delaware.

The reductions, based upon the recent cuts in crude oil, have thrown the eastern market into an uneasy frame of mind, and the possibility of another 1 cent reduction is receiving serious consideration in some quarters, it is understood. While the lower crude market was cited as the reason for the cut, one of the indirect causes was the growing activity of independent marketers. These suppliers, it is said, are drawing their stocks in large measure from East Texas refiners, who have been in position in recent months to buy "distressed" East Texas crude at extremely low prices, and consequently able to undersell the large refiners to a considerable extent.

The current reduction, the second within 30 days, has put the price of premium grades of motor fuel at a price sufficiently low to warrant expectation of a substantial improvement in gallonage for the premium product over the balance of the winter season, some marketers believe.

Unsettled weather conditions have again played an important part in the gasoline market in this territory, and gallonage during the week was reported to be rather light in all parts of the area.

A summary of gasoline sales in seven important eastern marketing states during the first 10 months of 1932 shows a relatively light decrease from comparable 1931 figures, the reductions being much smaller than had been indicated by previous reports. The figures follow:

	Jan.-Oct., incl. (gals.) 1932	1931
Connecticut	205,837,000	208,184,000
Maryland	161,999,000	158,561,000
Massachusetts	475,517,000	484,604,000
New Jersey	593,585,000	597,039,000
New York	1,346,178,000	1,370,542,000
Pennsylvania	876,692,000	887,093,000
Virginia	192,738,000	203,364,000
Totals	3,852,546,000	3,909,387,000

While the rate of decline in sales for the closing two months of 1932, preliminary reports indicate, will be greater than that experienced during the first 10 months, it is now evident that the gallonage decline in motor fuel sales for the East Coast area for the entire year 1932 will be much smaller than earlier indications, and considerably under the percentage drop for the country as a whole. The agricultural states in particular will record heavy sales declines for the full year, it is indicated.

Kerosene

Current production, as well as receipts from California and the Gulf, are moving readily into consuming channels, and the tank car market remains in firm position at 5½ cents f.o.b. terminals for water white. The anticipated half-cent increase has not yet materialized, and it is felt in some quarters of the trade that reductions in crude oil, and the current easiness in gasoline, may react against an advance in kerosene quotations.

Tank wagon kerosene prices remain steady, the market not having been affected by the latest reductions in gasoline quotations. Net kerosene prices for tank wagon delivery are now higher than net gasoline tank wagon prices in many parts of the East Coast territory, a rather unusual situation and illustrative of the strong "comeback" which kerosene has staged during the past year. Continued heavy demand for kerosene in tank wagon markets was recorded last week.

Lubs

No further changes in cylinder oil prices developed, and the market remained in rather dull position. Foreign buyers are citing the cuts in crude oil prices as justification for lower prices on cylinder oils, but Pennsylvania refiners are not disposed to accept this view, particularly so as most of the crude cuts have been in the Southwest. While refiners' stocks of cylinder oils are not excessive, continued lack of demand is expected to force further price shading on export sales, and the market undertone is less firm.

A quiet market for red and pale oils was against noted, the fractional price reductions of the previous week having failed to appreciably stimulate buying.

Wax

A stronger market for paraffin wax has developed, and prices are fractionally higher at 2½ cents per pound for 120-122 a.m.p. refined, 2⅞ cents for 125-127 a.m.p., 3⅛ cents for 130-132 a.m.p., and 4⅛ cents for 133-135 a.m.p., advances of one-eighth cent in each instance. An increase of one-quarter cent has been posted on 135-137 a.m.p. which is now quoted at 4⅜ cents on spot. There has been a little improvement in domestic buying, but export inquiry is still lagging.

Petrolatum

Recent shading of posted prices for petrolatum has been followed by reductions in spot prices on the cream and lily white grades, which are now quoted at 4½ and 5⅜ cents per pound, respectively, reductions of one-eighth cent in each instance.

Other grades are unchanged in price, with spot volume generally of small amount, and the market undertone still inclined to softness.

Furnace Oil

Although distributors are talking lower prices for domestic heating oils, the refinery market shows no signs of any general weakening, and sellers were firm at 5 cents for 36-40 and 4 cents for 32-36, with 21 gravity industrial heating oil at 3½ cents; all tank car delivery, f.o.b. terminals.

Tank wagon furnace oil prices remain

(Continued on Page 55)

Exports and Imports of Refined Products; Receipts of California Oils in the East

NEW YORK, Jan. 9.—The Gulf export market on 64-66 375 endpoint gasoline was established at 3⅞ to 4 cents during the week by the sale of an 8,000-10,000 cargo of this grade for February loading for France at 3⅞ cents. It is understood that the seller, one of the major suppliers at the Gulf, has the option of a second cargo of similar size for March loading. Gulf suppliers are quoting U. S. Motor for export at 3½ cents, with the intermediate grades quoted at 3¾ cents.

No cargo transactions in kerosene were reported at the Gulf, and the market continued strongly held.

A cargo of 10,000 to 12,000 tons of East Texas crude was reported closed, for prompt loading, at 90 cents, f.o.b. Gulf terminal, for shipment to France. A number of additional crude cargo inquiries are pending, with buyers holding off pending developments in the price and production situation.

Mexican heavy crude is quoted firm at 45 to 46 cents, plus taxes, f.o.b. Panuco, but no cargo sales were reported.

Rumanian export sellers have advanced their f.o.b. Constanza quotation on light gasoline (equivalent to U. S. 64-66) 24 cents per ton to $16.94, which figures out 4.55 cents per gallon. Heavy gasoline at Constanza (equivalent to U. S. Motor) remains unchanged at $13.30 per ton, or approximately 3.79 cents per gallon. With these quotations in effect, sellers at the United States Gulf are underquoting Rumania in the open market for the first time in some months, and while this condition prevails, American sellers expect to succeed in getting a greater share in French and other European business.

Closing of a contract for a cargo of some 59,000 bbls. of California refined products was indicated by the chartering of the Norwegian motor tanker "Athene," of 7,000 tons register, for movement of a clean cargo from California to Australia, January-February loading.

Another charter during the week was that of the Norwegian motorship Storstadt, with carrying capacity of some 105,000 bbls., for two voyages from California to Japan (dirty) one loading to one discharging port, first loading January-February. The charter rate is 21 cents.

Further weakness in domestic crude oil prices are tending to center foreign buying interest on American markets for both crude and products, and considerable cargo inquiry is looked for.

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended December 31 totaled 963,000 bbls., a daily average of 137,571 bbls., as compared with 642,000 bbls., or 91,-

(Continued on Page 58)

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21, 1932.

Refinery Gasolines

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
*U. S. Motor grades:				
Regular	.02⅝	.03	.03¼	.03⅜
Premium	.02⅞	.03¼	.03⅜	.03⅝
Third grade	.02¼	.02⅝	.02⅝	.02⅞
60-62 400 grades:				
Regular	.02⅞	.03¼	.03⅜	.03⅝
Premium	.03⅛	.03½	.03⅝	.03¾
Third grade	.02½	.03	.02⅞	.03⅛
64-66 390	.02¾	.03¼	.03½	.03⅝
64-66 375	.03⅛	.03⅞	.03¾	.03⅞
68-70 350	.03⅝	.03¾	.03⅝	.04
NORTH TEXAS—				
U. S. Motor grades:				
Regular	.02½	.03	.03	.03¼
Premium	.02¾	.03¼	.03¼	.03½
Third grade	.02½	.02½	.02½	.02¾
60-62 400	.02½	.02¾	.02¾	.03
64-66 390	.02½	.03	.03	.03¼
64-66 375	.02½	.03⅛	.03⅛	.03⅜
64-66 360	.03⅛	.03½	.03½	.03¾
†NORTH LOUISIANA—				
U. S. Motor grades:				
Regular	.03⅜	.03½	.03⅞	.04⅛
Premium	.03⅝	.04	.04⅛	.04⅜
Third grade	.03		.03½	.03¾
60-62 400	.03¼	.03⅝	.03¾	.04
†ARKANSAS—				
U. S. Motor grades:				
Regular	.03⅜		.03⅞	.04⅛
Premium	.03⅝		.04⅛	.04⅜
Third grade	.03		.03½	.03¾
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Regular	.02⅝	.02⅞	.03⅛	.03⅜
Premium	.03	.03⅜	.03⅝	.03½
Third grade	.02⅜	.02½	.02⅝	.02¾
60-62 400	.02½	.02⅝	.02¾	.02⅞
64-66 375	.03⅛	.03⅛	.03⅜	.03⅞
68-70 360	.03½	.04	.04	.04⅛
Aviation fighting grade	.04	.04¼	.04¼	.04½

*Octane Ratings—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular, 57-65 octane numbers; premium, above 65 octane number; third grade, below 57 octane number.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.05½	.05¾	.05½	.06
60-62 400	.05¾	.06	.05¾	.06¼
64-66 375	.06	.06¼	.06	.06¼
68-70 350	.06⅛	.06¼	.06⅛	.06¼
CALIFORNIA—(domestic movement only)—				
54-58 U. S. Motor	.05¾	.06½	.06	.06¾
58-60 400	.06½	.07	.07	.07½
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.05¾	.06	.05¾	.06
Boston	.06		.06	
Baltimore, Md.	.05½	.06¼	.05¾	.06
Charleston, S. C.	.06		.06	
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.06	.06¼	.06	.06½
Boston	.06¼		.06¼	
Baltimore, Md.	.06	.06¼	.06	.07
Charleston, S. C.	.06¼		.06¼	
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.04¾	.05¼	.04¾	.05¼
U. S. Motor, below 65 octane number	.03¾	.04¼	.04	.04½

Naphthas

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
50-52 450 (blending)	.02⅝	.02¾	.02¾	.03
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.05¼	.05½	.05½	.06
ARKANSAS—				
48-50 450 (blending)	.03	.03¼	.03¼	.03⅜
CHICAGO (Based on Oklahoma Group 3)—				
50-52 450 (blending)	.02½		.02¾	
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06	.06¼	.06⅛	.06⅞
Lacquer diluent, 180 i.b.p.-250 e.p.	.07⅛	.07¾	.07½	.07⅞
Lacquer diluent, 140 i.b.p.-200 e.p.	.08½		.08	.08¼
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.05½	.06¼	.07	.07¼
Stoddard solvent, 300 i.b.p.-410 e.p., over 100° flash	.05½	.05¾	.06½	.06¾
Pet. thinner, 290, 300 i.b.p.-415 e.p., over 83° flash	.04¾	.05	.03⅞	.04⅛
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¾	.06	.05¼	.05½
Petroleum spirits	.04¼	.04½	.03½	.03⅝

Natural Gasolines

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
Grade 18-55	.02⅝	.02¾	.02⅝	
Grade 26-70	.02¼		.02¼	
Grade 30-70	.02⅛		.02⅛	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02⅞	.03	.02⅞	.03
11 lb. v.p. (max.)	.03¼		.03½	
NORTH TEXAS—				
Grade 18-55	.02½	.02⅝	.02½	
Grade 26-70	.02⅛		.02⅛	
Grade 30-70	.02		.02	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02¾		.02¾	
11 lb. v.p. (max.)	.03¼		.03½	
NORTH LOUISIANA—				
Grade 26-70	.02¾		.02¾	
CALIFORNIA—				
75-78 375	.04¾	.05¼	.05	.05½

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
41-43	.03⅛	.03½	.03⅝	.03⅝
42-44	.03¼	.03⅝	.03½	.03¾
NORTH TEXAS—				
40-41	.03		.03½	.03¼
41-43	.03	.03¼	.03¼	.03⅜
†NORTH LOUISIANA—				
41-43	.03¾		.03¾	
42-44	.04		.04	
†ARKANSAS—				
41-43	.03¾		.03¾	
PENNSYLVANIA (inland refineries)—				
45	.04¾	.04⅞	.04¾	.04⅞
46	.04⅞	.05	.04⅞	.05
47	.04⅞	.05	.04⅞	.05⅛
CHICAGO (Based on Group 3)—				
41-43	.03⅛	.03⅜	.03⅜	.03½
42-44	.03¼	.03½	.03½	.03⅝
*CALIFORNIA—				
38-40 high burning test	.04	.04¾	.04	.04¾
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04½		.04¾	

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Furnace Oils and Tractor Fuels

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
32-36 straw	.02⅞	.03⅛	.03	.03¼
36-38 straw	.03	.03⅛	.03⅛	.03¼
38-40 straw	.03	.03¼	.03¼	.03⅜
39-41 prime	.03	.03¼	.03¼	.03⅜
NORTH TEXAS—				
38-40 straw	.03	.03¼	.03⅛	.03¼
†NORTH LOUISIANA—				
36-40	.03¾		.03¾	
†ARKANSAS—				
32-36	.03½	.03¾	.03½	.03¾
CHICAGO (Based on Group 3)—				
32-36 straw	.03	.03⅛	.03⅛	.03¼
38-40 straw	.03⅛	.03¼	.03¼	.03⅜
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03¾	.04	.03¾	.04
NEW YORK (Bayonne, N. J.)—				
32-36	.04		.04	
36-40	.05		.05	
21 (industrial)	.03½		.03½	

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
32-36 (G.O.) cracking stock	.01¾	.02	.02	.02⅛
U.G.I. (G.O.)	.01⅞	.02	.02	.02⅛
32-36 zero to 15 (G.O.) high flash	.02⅝	.02¾	.02⅞	.03⅛
28-30, zero to 10	.95	1.05	1.00	1.05
26-30, zero to 10	.80	.90	.85	.90
24-26	.60	.65	.60	.65
20-22	.50	.55	.50	.55
Below 16	.40	.45	.40	.45
NORTH TEXAS—				
32-36 (G.O.) industrial	.01¾	.02	.01⅞	.02
22-26	.45	.50	.50	.55
Below 20	.40	.45	.45	.50
NORTH LOUISIANA—				
32-36 (G.O.) zero	.03		.03¼	
14-16	.45		.45	
†ARKANSAS—				
30-32 (G.O.) zero high flash	.03		.03¼	
14-16	.45		.45	
CHICAGO (Based on Group 3)—				
32-36 (G.O.) industrial	.02	.02¼	.02¼	.02½
28-30 (zero)	1.05	1.10	1.10	
22-26	.70	.75	.75	.80
18-22	.60	.65	.65	.70
Below 18	.55	.60	.60	.65
PENNSYLVANIA (inland refineries)—				
36-40	.03¼	.03½	.03½	.03½

Note: Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.90	1.00	.85	.95
27 plus Diesel	.90	1.00	.85	.95
15-19 bunker (at tidewater)	.55	.65	.55	.65
15-19 (cargo lots)	.50	.60	.50	.60
15-19 (tank cars)	.35	.50	.40	.55
GULF COAST—				
28-30 (G.O.)	.03½	.03⅝	.03½	.03¾
28-30 Diesel	1.50	1.65	1.50	1.65
Bunker C (bulk cargoes)	.50		.50	
Bunker C (bunkers)	.60		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.03¾	.04	.03¾	.04
*28-30 Diesel	1.65		1.65	
26-30 Diesel (tank cars)	.04		.04	
†Bunker C	.75		.75	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	5.50	5.50
Still runs	6.50	6.50
Lump and egg	7.50	7.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

OKLAHOMA (Group 3)—	Jan. 10		Jan. 3	
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07⅝	.07½	.07⅝
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.09⅜	.10	.09⅜	.10
240-4	.09½	.09½	.09½	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10¼	.10½	.10¼	.10½
300-3½	.11⅝	.12	.11⅝	.12
350-3½	.12¼	.12½	.12¼	.12½
400-4	.12⅝	.13	.12⅝	.13
500-4½	.13	.13½	.13	.13½
100-2 paraffin oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07½	.07⅝	.07½	.07⅝
200-4	.07⅝	.07½	.07⅝	.07½
240-3	.09¼	.09½	.09¼	.09½
240-4	.08⅜	.09	.08⅜	.09
280-3	.10⅜	.11	.10⅜	.11
280-4	.09⅝	.10	.09⅝	.10
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.11⅜	.12	.11⅜	.12
10 pour test	.11¼	.11⅝	.11¼	.11⅝
15 pour test	.10	.10½	.10	.10½
25 pour test	.09	.09½	.09	.09½
180 vis., No. 3, 25 pour test	.12	.12½	.12	.12½

200 vis., No. 3:				
Zero pour test	.18	.19	.18	.19
10 pour test	.17	.18	.17	.18
15 pour test	.16		.16	
25 pour test	.13½	.14	.13½	.14
30 pour test	.13		.13	
GULF COAST—				
Pale Oils:				
100-2-2½	.05	.05¼	.04¾	.05
200-3	.06¼	.07	.06	.06¼
300-3	.07¼		.07	
500-3½	.09	.09¼	.08¾	.09
750-3½	.10	.10¼	.09¾	.10
1,200-3½	.12	.12¼	.11¾	.12
2,000-4	.13	.13¼	.12½	.13
Red Oils:				
200-5-6	.05¼	.05½	.05	
300-5-6	.06½	.06¾	.05¾	.06
500-5-6	.07½	.07¾	.07¾	.08
1,200-5-6	.10½	.11	.10¾	.11
2,000-6 plus	.12¼	.12½	.12	.12½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.09	.10	.09	.10
200-2½-3	.10	.11	.10	.11
300-3-3½	.11	.11½	.11	.11½
350-3-4	.11½	.11¾	.11½	.11¾
400-3-4	.11¾	.12	.11¾	.12
450-3-4	.12	.12¼	.12	.12¼
550-3-4	.12¼	.12¾	.12¼	.12¾
Red Oils:				
2004-5	.08¾	.09¼	.08¾	.09¼
300-5-6	.10	.10½	.10	.10½
350-5-6	.10½	.11	.10½	.11
400-5-6	.11	.11½	.11	.11½
450-5-6	.11½	.11¾	.11½	.11¾
500-5-6	.11¾	.12	.11¾	.12
600-5-6½	.12	.12¼	.12	.12¼
700-6½ plus	.12¼	.12½	.12¼	.12½
750-6½ plus	.12½	.12¾	.12½	.12¾
900-6½ plus	.13	.14½	.13	.14½

Bright and Steam Refined Stocks

	Jan. 10		Jan. 3	
OKLAHOMA (Group 3)—				
630 light green	.07¾	.08	.07¾	.08
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stocks:				
190-200 D	.17½		.17½	
150-160 D, 0-10	.15½		.15½	
150-160 D, 10-25	.15		.15	
150-160 D, 25-40	.14½		.14½	
150-160 E	.14½		.14½	
PENNSYLVANIA—				
600 S.R.	.09½	.10½	.09½	.10½
650 S.R.	.12	.13	.12	.13
600 Pennsylvania flash	.13½	.14	.13½	.14
630 D filtered	.18½	.19	.18½	.19
600 E filtered	.13½	.14½	.13½	.14½
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis. 210-540-550 flash:				
10 pour test	.21	.22½	.21	.22½
15 pour test	.20	.21	.20	.21
25 pour test	.18	.19	.18	.19

Wax and Petrolatum

(Prices per pound)

	Jan. 10		Jan. 3	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.01⅞	.02	.01⅞	.02
PENNSYLVANIA—				
122-124	.02½		.02½	
124-126	.02⅞	.02¼	.02⅞	.02¼
NEW YORK (Bayonne, N. J.)—				
120-122	.02½		.02⅜	
125-127	.02⅞		.02¾	
130-132	.03⅛		.03	
133-135	.04⅛		.04	
135-137	.04⅜		.04⅛	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02½		.02½	
Extra amber	.02½		.02½	
Lily white	.05½		.05½	
Snow white	.06½		.06½	

Export Prices

	Jan. 10		Jan. 3	
GASOLINE				
GULF COAST—				
U. S. Motor	.03½		.03¾	
60-62 400	.03¾		.04	
61-63 390	.03¾		.04	
64-66 375	.03⅞	.04	.04	
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.04¾	.05	.04¾	.05
U. S. Motor, 67 octane num.	.05½		.05½	
U. S. Motor, 69 octane num.	.05½		.05½	
58-60 400 endpoint gasoline	.04¼	.05	.04¼	.05
KEROSENE				
GULF COAST—				
41-43 prime white	.04¼		.04¼	
41 water white	.04	.04½	.04	.04½
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¼	.03¾	.04¼
LUBRICANTS				
NEW YORK (f.a.s. in bbls.)—				
600 filtered	.22		.22	
600 Warren E	.19		.19	
600 S.R. unfiltered	.16		.16	
650 S.R. unfiltered	.18		.18	
600 flash S.R.	.19		.19	
630 flash S.R.	.24		.24	
Bright stock, No. 8 color	.24		.24	
Bright stock, No. 6½ color, dil.	.23½		.23½	
NEUTRALS				
NEW YORK—Pale Engine Oil, Bulk (vis. at 100)—				
230-3¾	.09¾		.09¾	
180-3¼	.09½		.09½	
100-2¼	.05		.05	
Red Engine Oil, Bulk (vis. at 100):				
300-6½	.09½		.09½	
250-6	.08¾	.09	.08¾	.09
200-6	.08¼		.08¼	
Cream	.04⅝		.04⅝	

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (Dec. 15, 1932) .....$ .75
Corsicana, heavy (Jan. 1, 1933)* ..... .50
Other fields .....See gravity table

East Texas posted by Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co. (Dec. 14), Panola Pipe Line Co. (Dec. 17), The Texas Company, Shell Petroleum Corp. (Dec. 17), and Gulf Pipe Line Co.

Humble Oil & Refining Co., December 15, 1932; posted by Tidal Refining Co., December 16, 1932.

*Magnolia Petroleum Co.

West Texas

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos counties.....See note below
Lea County, New Mexico .....(See Rocky Mountain States)
Toborg, Pecos County* .....$ .65

Note—Effective December 15, 1932, Magnolia Petroleum Co., Shell Petroleum Corp., December 17, 1932, 65 cents; effective December 16, 1932, Humble Oil & Refining Co., Gulf Petroleum Co. (Dec. 19), The Texas Company (Dec. 15), and Stanolind Oil & Gas Co., 50 cents. January 1, 1933, Magnolia Petroleum Co., 50 cents.

*Shell Petroleum Corp. effective October 15, 1932.

Texas Panhandle

Gray County, Wheeler County and Carson-Hutchinson Counties....See gravity table

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers .....See gravity table
Jennings, La. (Dec. 19, 1932)* .....$ .60
Lockport, La.....Below 25 gravity 68 cents, differential 2 cents per degree beginning with 25-25.9 at 70 cents with 40 gravity and over at $1.
Refugio, light .....See gravity table
Refugio, heavy (Dec. 15, 1932)‡ ..... .65
Markham (Oct. 15, 1932)‡ .....See Gulf Coast gravity schedule
High Island (Apr. 11, 1932)† .....See Gulf Coast gravity schedule

*Gulf Refining Co. ‡Humble Oil & Refining Co. †The Texas Company. †Yount Lee Pipe Line Co.

South Central and Southwest Texas

Darst Creek .....See note below
Luling (Jan. 1, 1933)* .....$ .50
Mirando (Dec. 16, 1932)† ..... .55
Mirando (Jan. 1, 1933)* ..... .55
Pettus (Dec. 15, 1932)† ..... .50
Salt Flat .....See note below
Thrall‡ .....
Lyton Springs (Lockhart) (Jan. 1, 1933)* ..... .70
Dobrowolski‡ .....
Same as Mid-Continent gravity scale up to and including 38-38.9°
Somerset‡ .....
Same as Mid-Continent gravity scale up to and including 38-38.9°

Note—Darst Creek, effective December 15, 1932, Magnolia Petroleum Co., The Texas Company, Gulf Pipe Line Co. and Humble Oil & Refining Co., 60 cents; Salt Flat, effective December 15, 1932, Magnolia Petroleum Co., 75 cents; effective December 16, 1932, Humble Oil & Refining Co., 60 cents; Shell Petroleum Corp., December 17, 1932, 60 cents; Humble Oil & Refining Co. posted 80 cents for Mirando crude oil on April 11, 1932.

*Posted by Magnolia Petroleum Co.
†Humble Oil & Refining Co.
‡Thrall prices same as North Central Texas, less 19½ cents per cwt. freight.
‡Pioneer Oil & Refining Co.
‖Greyburg Oil & Refining Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades) .....See note below
Urania, La. (Dec. 21, 1932) .....$ .55
East El Dorado, Ark. (Dec. 16, 1932).. .65
Stephens, Ark., below 29° (Apr. 12, 1932) .61
Stephens, Ark., 29° and above (Apr. 12, 1932) ..... .64
Sabine and DeSoto....Below 25 gravity 42 cents, with 2-cent differential per degree making 40 gravity and above at 74 cents.
Other fields .....See gravity table

Note—Smackover, all grades, effective December 16, 1932. Magnolia Petroleum Co., Louisiana Oil & Refining Co., The Texas Company (Dec. 15), Gulf Refining Co. of Louisiana, 50 cents; effective December 16, 1932, Standard Oil Co. of Louisiana, 30 cents. December 30, Root Refineries posted 40 cents for all grades of Smackover and East El Dorado crudes; Leon Oil & Refining Co. and McMillan Oil Products Co., 40 cents. Urania posted by H. L. Hunt, Inc., and Louisiana Oil & Refining Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co. Stephens, Ark., posted by Louisiana Oil & Refining Co. and Atlantic Oil Producing Co., 50 cents.

Rocky Mountain States

OHIO OIL CO.-STANOLIND OIL & GAS CO.
Ilos, light (Dec. 16, 1932) .....$ .65
Ilos, heavy (Dec. 16, 1932) ..... .50
Fort Collins, Wellington and Greasewood, Colo., are on contract basis.
Florence (Dec. 15, 1932) ..... .57
Dutton Creek, Wyo. (Dec. 16, 1932) ... .59
Rock Creek, Wyo. (Dec. 16, 1932) ..... .67
Frannie, light (Dec. 16, 1932) ..... .51
Frannie, heavy (Dec. 16, 1932) ..... .41
Salt Creek .....
See Stanolind Mid-Continent price schedule
LaBarge .....Mid-Continent gravity scale
Big Muddy (Dec. 16, 1932) ..... .75
Grass Creek (Dec. 16, 1932) ..... .37
Grass Creek heavy (Dec. 15, 1932) ... .45
Elk Basin (Dec. 16, 1932) ..... .37
Lance Creek (Dec. 16, 1932) ..... .92
Poison Spider (Mar. 5, 1931) ..... .70
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40
Rex Lake (Feb. 23, 1930) 1.10
Osage (Apr. 15, 1931) ..... .93
Lost Soldier (Apr. 12, 1932) ..... .80
Hamilton Dome (Dec. 16, 1932) ..... .25
Greybull (Dec. 16, 1932) ..... .87
Cat Creek (Dec. 16, 1932) ..... .87
Pondera (Nov. 7, 1932) ..... .60
Sunburst, Mont. (Nov. 7, 1932) ..... .75
Hogback, N. Mex. (Aug. 24, 1931) .... .80
Border, Mont. 1.55

(Continued on Page 31)

Crude Oil Gravity Table

Degree gravity—	1 Kansas, Oklahoma, North Texas, East Central Texas and Central Texas	2 North Louisiana and Arkansas	3 Hutchinson, Carson and Moore Counties, Texas	4 Hutchinson, Carson and Moore Counties	5 Gray County, Texas	6 Gray County, Texas	7 Gulf Coast, Texas and Louisiana	8 Cameron Meadows, La.	Salt Creek and LaBarge, Wyo.
Below 20	....	....	....	....	....	....	$.58	$.48	....
20-20.9	....	....	....	....	....	....	.60	.50	....
21-21.9	....	....	....	....	....	....	.62	.52	....
22-22.9	....	....	....	....	....	....	.64	.54	....
23-23.9	....	....	....	....	....	....	.66	.56	....
24-24.9	....	....	....	....	....	....	.68	.58	....
Below 25	$.45	$.39	....	....	....	....	....	....	....
25-25.9	.47	.41	....	....	....	....	.70	.60	....
26-26.9	.49	.43	....	....	....	....	.72	.62	....
27-27.9	.51	.45	....	....	....	....	.74	.64	....
28-28.9	.53	.47	....	....	....	....	.76	.66	....
Below 29	....	....	....	$.26	....	$.36	....	....	$.53
29-29.9	.55	.49	....	.28	....	.38	.78	.68	.55
30-30.9	.57	.51	....	.30	....	.40	.80	.70	.57
31-31.9	.59	.53	....	.32	....	.42	.82	.72	.59
32-32.9	.61	.55	....	.34	....	.44	.84	.74	.61
33-33.9	.63	.57	....	.36	....	.46	.86	.76	.63
34-34.9	.65	.59	=$.51	.38	$.56	.48	.88	.78	.65
35-35.9	.67	.61	.53	.40	.58	.50	....	....	.67
36-36.9	.69	.63	.55	.42	.60	.52	....	....	.69
37-37.9	.71	.65	.57	.44	.62	.54	....	....	.71
38-38.9	.73	.67	.59	.46	.64	.56	....	....	.73
39-39.9	.75	.69	.61	.48	.66	.58	....	....	.75
40 and over	.77	.71	.63	.50	.68	.60	....	....	.77

Note—The Standard Oil Co. of Louisiana, effective December 16, posted the following schedule of prices in North Louisiana and Arkansas in the fields in which it purchases on a gravity basis: Caddo, below 25 degrees, 39 cents; 40 degrees and above, 71 cents; Sabine and DeSoto, below 25 gravity, 42 cents; 40 gravity and above, 74 cents; Homer, below 25 gravity, 44 cents; 40 gravity and above, 76 cents; Sarepta and Carterville, below 25 gravity, 35 cents; 40 gravity and above, 67 cents; El Dorado, below 25 gravity, 42 cents; 40 gravity and above, 74 cents; Haynesville, below 25 gravity, 32 cents; 40 gravity and above, 65 cents. The above all to carry 2 cents differential for each degree of gravity.

Column 1—Posted by Humble Oil & Refining Co., effective December 15, in North Texas, East Central Texas and Central Texas. Effective December 16, Carter Oil Co., in Kansas and Oklahoma; effective December 15, Sinclair Prairie Oil Marketing Co., in Kansas, Oklahoma, North Texas, Central Texas and East Central Texas; by The Texas Company, December 20, in Oklahoma and North and Central Texas and East Central Texas; in Kansas, Oklahoma and North Texas by Continental Oil Co., effective December 15; in Kansas and Oklahoma by Phillex Oil Co., Empire Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., December 15; Gypsy Oil Co., December 19; National Refining Co., December 16; in Oklahoma by Champlin Refining Co., effective December 16; in North and Central Texas by the Gulf Pipe Line Co., December 17; in Kansas by the Skelly Oil Co. and White Eagle Oil Corp., Kansas, Oklahoma and North Central Texas by the Stanolind Crude Oil Purchasing Co., December 16. Effective December 16 in Kansas, Kanotex Refining Co. posted 28-28.9 degrees, 53 cents, with 2 cents added for each degree upward to 40 degrees and over. Eldorado Refining Co. adopted Stanolind prices in Kansas, effective December 16, and Magnolia Petroleum Co. adopted the schedule in Oklahoma, North Texas, East Central Texas and Central Texas on January 1, 1933.

Column 2—Effective December 16, by The Texas Company and Louisiana Oil Refining Co., as per schedule above and Gulf Refining Co., December 17. Magnolia Petroleum Co., January 1, 1933. (See note below table.)

Column 3—Effective December 15, Humble Oil & Refining Co. and Continental Oil Co.; December 19, Gulf Production Co.; January 1, 1933, Magnolia Petroleum Co.

Column 4—Phillex Oil Co., December 16.

Column 5—Effective December 15, Humble Oil & Refining Co., Continental Oil Co. and H. F. Wilcox Oil & Gas Co.

Column 6—Phillex Oil Co., December 16.

Column 7—Effective December 15, by Humble Oil & Refining Co. in Goose Creek, Hull, Liberty, Orange, Pierce Junction, Mykawa, Moss Bluff, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugarland, West Columbia, Humble, Rabbs Ridge and Refugio light oil. Sinclair Prairie Oil Marketing Co. in Boling, Barbers Hill and West Columbia, December 15. Magnolia Petroleum Co. in Lockport and Iowa, Louisiana, January 1, 1933. Conroe posted by Humble Oil & Refining Co., December 15, as follows: 35-35.9 gravity, 80 cents, with 2-cent differential per degree, making 40 gravity oil and above 90 cents.

Column 8—Magnolia Petroleum Co., effective January 1.

Column 9—Stanolind Oil & Gas Co., December 16.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

January 10, 1933

Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1.5 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 3 cents above the service station price for the regular grade.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Chicago	14.1	14.1	4.0	10.0
Decatur, Ill.	16.6	16.6	4.0	10.1
E. St. Louis	17.9	14.9	4.0	9.3
Joliet	16.0	15.6	4.0	8.6
Peoria	16.6	15.6	4.0	10.1
Quincy	16.4	16.4	4.0	9.9
Davenport, Ia.	16.7	16.7	4.0	10 4
Des Moines	16.7	16.7	4.0	8.0
Mason City	16.7	16.7	4.0	9.0
Sioux City	16.3	16.3	4.0	10.0
Duluth, Minn.	17.7	17.7	4.0	11.0
Mankato	17.3	17.3	4.0	8.1
Minneapolis	15.4	15.4	4.0	11.0
LaCrosse, Wis.	18.4	18.4	5.0	11.1
Green Bay	17.8	17.8	5.0	10.5
Milwaukee	16.3	16.3	5.0	10.0
Madison	17.5	17.5	5.0	10.2
Detroit, Mich.	15.0	15.0	4.0	9.0
Grand Rapids	16.5	16.5	4.0	10.2
Saginaw	16 8	16.8	4.0	10.8
Evansville, Ind.	16.2	16.2	5.0	†13.9
Indianapolis	17.4	17.4	5.0	†14.1
South Bend	17.7	17.7	5.0	†14.4
Fargo, N. D.	19.1	19.1	4.0	13.0
Huron, S. D.	18.5	18.5	5.0	11.9
Sioux Falls	18.0	18.0	5.0	10.0
K. C., Mo.*	14.1	14.1	4.0	8.7
Springfield*	16.0	16.0	4.0	8.0
St. Louis	11.5	11.0	4.0	9 4
St. Joseph*	13.0	9.9	4.0	7.5
Wichita, Kans.	14.9	14.9	4.0	7.0
Bartlesville, Ok.	14.5	17.0	5.0	8.0

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

†Includes 4-cent tax. Buyers of kerosene not used as motor fuel can secure refund of tax.

Effective November 4 — New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 3 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement; Same amounts as above except made off service station price instead of tank wagon price.

Stanolind Furnace Oil in Chicago

Effective November 1, 1932, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. sero), 100 gallons or more, 7 cents; No. 2 (30-34 stw. sero), 150 gallons or more, 6½ cents; No. 3 (22-26 sero), 400 gallons or more 5.75 cents; No. 4 (12-16 sero), 400 gallons or more, 4.75 cents. Viscosity of No. 4, 90-115 at 100° F.

Fuel Oils

Chicago Oil Heat Institute Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively: 38-40, 7 and 8 cents; 32-36 light, 6⅝ and 7¼ cents; 32-36 dark, 6½ and 7½ cents; 28-30, 5¾ and 6⅝ cents; 24-26, 5 and 6 cents; 16-22, 4⅝ and 5⅝ cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	13.5	16.0	5.0	7.0
Fort Worth	13.5	16.0	5.0	7.0
Houston	13.5	16.0	5.0	8.0
San Antonio	13.5	16.0	5.0	8.0
El Paso	15.0	17.0	5.0	10.0
Texarkana	*15.0	15.0	5.0	†11.0
Muskogee, Okla.	13.5	15.0	5.0	8.0
Okla. City	13.5	16.0	5.0	8.0
Tulsa	13.5	16.0	5.0	8.0
Ft. Smith, Ark.	*15.0	15.0	5.0	†10.0
Little Rock	15.5	15.5	7.0	†10.0

*Less 2½ cents to dealers. †Less 2 cents to dealers.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.	19.0	19.0	7.0	12.0
Augusta	20.0	20.0	7.0	11.0
Macon	20.0	20.0	7.0	12.0
Savannah	20.0	20.0	7.0	12.5
Birm'ham, Ala.	22.0	22.0	8.0	11.0
Mobile	21.0	21.0	8.0	10.0
Montgomery	22.0	22.0	8.0	13.5
Jackson, Miss.	18.0	18.0	7.0	10.0
Vicksburg	20.0	20.0	7.0	10.5
Jack'ville, Fla.	20.0	20.0	8.0	12.0
Miami	21.0	21.0	8.0	12.5
Pensacola	19.0	19.0	8.0	12.0
Tampa	18.0	18.0	8.0	13.0
Lexington, Ky.	18.5	18.5	6.0	10.5
Covington	18.0	18.0	6.0	10.5
Louisville	17.0	17.0	6.0	9.0
Paducah	19.0	19.0	6.0	8.0

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Denver, Colo.	14.0	17.0	5.0	13.5
Pueblo	14.0	17.0	5.0	12.5
Grand Jnctn.	18.0	21.0	5.0	14 5
Casper, Wyo.	16.0	19.0	5.0	10.0
Cheyenne	14.0	17.0	5.0	11.5
Butte, Mont.	20.0	23.0	6.0	17.0
Billings	22.0	25.0	6.0	15.5
Great Falls	22.0	25.0	6.0	17.0
Helena	22.0	25.0	6.0	17.0
Salt Lake, Utah	17.0	20.0	5.0	16.0
Albu'que, N. M.	16.0	19.0	*7.0	14.0
Boise, Idaho	20.5	23.5	6.0	18.0
Twin Falls	20.5	23.5	6.0	18.0

*One-cent city tax.

Central South District

STANDARD OIL CO. (LOUISIANA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	15.0	15.0	*7.0	†11.0
Baton Rouge	14.5	14.5	6.0	†11.0
Alexandria	13.0	13.0	7.0	†8.5
Lafayette	14.5	14.5	7.0	†10.0
Lake Charles	14.5	14.5	7.0	†11.0
Shreveport	13.5	13.5	6.0	†11.0
Knoxville, Tenn.	18.0	18.0	8.0	10.0
Memphis	17.0	17.0	8.0	10.0
Chattanooga	16.5	16.5	8.0	12.0
Nashville	17.5	17.5	8.0	12.0
Bristol	18.0	18.0	8.0	13.0
Lt. Rock, Ark.	15.0	15.0	8.0	10.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Two-cent discount off kerosene tank wagon price and 2½ cents off gasoline tank wagon price to dealer and commercial accounts.

Ohio

STANDARD OIL CO. (OHIO)*

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Ohio points	13.5	14.0	5.0	*12 0

*Two cents off on gasoline tank wagon to dealers and commercial accounts; 2½ cents off tank wagon on kerosene to dealers.

Nebraska

STANDARD OIL CO. (NEBRASKA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Omaha	17.25	18 25	5.0	9.0
McCook	18.75	19.0	5.0	11.75
Norfolk	17.75	18.75	5.0	10.75
N. Platte	17.0	17.0	5.0	9.0
Scottsbluff	18.0	18.0	5.0	11.25

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	14.0	15.0	4.0	9.0
New York	13.5	13.5	4.0	9.5
Buffalo	14.0	15.0	4.0	10.0
Rochester	14.5	15.5	4.0	10.0
Syracuse	13.0	14.0	4.0	10 5
Boston, Mass.	13.5	14.5	4.0	8.0
Augusta, Me.	16.5	17.5	4.0	9.0
Manch'tr, N. H.	16 5	17.5	5.0	8.0
Burlington, Vt.	17.0	18.0	5.0	8.5

*Discount schedule to commercial accounts are as follows: At service stations, 1 cent per gallon; tank wagon deliveries up to 20,000 gallons monthly, 2 cents per gallon; 20,000 to 100,000 gallons, 2½ cents; 100,000 to 300,000 gallons, 3 cents; 300,000 gallons and up, 3½ cents.

Atlantic Coast District

STANDARD OIL CO. (NEW JERSEY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	14.0	15.0	4.0	11.2
Newark	13.3	14.3	4.0	8.5
Annapolis, Md.	14.6	15.6	5.0	10.0
Baltimore	14.0	15.0	5.0	8.0
Cumberland	15.5	16.5	5.0	11.7
Wash'g'n, D. C.	11.2	12 2	3.0	10.0
Danville, Va.	16.7	17.7	6.0	11.9
Norfolk	15.1	16.1	6.0	10.3
Petersburg	16.2	17.2	6.0	11.4
Richmond	15.5	16.5	6.0	10.7
Roanoke	16.7	17.7	6.0	11.9
Charls'n, W. Va.	15.4	16.4	5.0	11.6
Parkersburg	14.0	15.0	5.0	10.2
Wheeling	15.0	16.0	5.0	11.2
Charlotte, N. C.	18.3	19.3	7.0	12.5
Hickory	18.5	19.5	7.0	12.7
Mt. Airy	18.6	19.6	7.0	12.8
Raleigh	18.1	19.1	7.0	12.3
Salisbury	18.4	19.4	7.0	12.6
Charleston, S.C.	16.1	17.1	7.0	10 3
Columbia	18.0	19.0	7.0	12.3
Spartanburg	18 2	19.3	7.0	12.5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and Baltimore, Md., where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Naphtha

	Tank Wagon	Car
Oleum spirits	10.7	6.22
V.M.&P. naphtha	12.7	7.23
Cleaners' naphtha	15.2	9.22
Stanisol	15.2	9.22

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Canada

IMPERIAL OIL, LTD.

Imperial 3-Star Gasoline

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Hamilton, Ont.	24.0	27.0	6.0	16.5
Toronto, Ont.	24.0	27.0	6.0	16.0
Brandon, Man.	30.5	34.0	7.0	20.5
Winnipeg, Man.	27.5	31.0	7.0	17.5
Regina, Sask.	30.5	34.5	6.0	21.5
Saskatoon, Sask.	32.5	36.5	6.0	23.5
Edmonton, Alta.	30.5	34.0	6.0	22.5
Calgary, Alta.	27.0	30.5	5.0	19.0
Vancouver, B.C.	26.0	31.0	7.0	24.0
Montreal, Que.	22.5	26.5	6.0	15.0
St. Johns, N.B.	27.0	31.0	7.0	22.0
Halifax, N.S.	26.0	30.0	6.0	22.0

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank truck†	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero. tank wagon
Fresno	19.0	18.0	4.0	17.0
San Francisco	19.0	18.0	4.0	15.5
Los Angeles	18.5	17.5	4.0	15.5
Reno, Nev.	23.0	22.0	5.0	19.0
Portland, Ore.	16.4	15.4	5.0	16.5
Seattle, Wash.	17.4	16.4	6.0	16.5
Tacoma	17.4	16.4	6.0	16.5
Spokane	20.9	19.9	6.0	20.5
Phoenix, Ariz.	19.5	21.5	6.0	20.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Pittsburgh, Pa.	15.0	16.0	4.0	10.0
Philadelphia	14.0	15.0	4.0	10.0
Scranton	14.5	15.5	4.0	10.0
Allentown	14.5	15.5	4.0	10.0
Altoona	15.0	16.0	4.0	10.0
Erie	15.0	16.0	4.0	10.0
Dover, Del.	14.5	15.5	4.0	10.0
Wilmington	14.5	15.5	4.0	9.0
Spring'd, Mass.	14.5	15.5	4.0	8.0
Worcester	14.5	15.5	4.0	8.0
Boston	13.5	14.5	4.0	8.0
Providence, R.I.	12.5	13.5	3.0	8.0
Hartford, Conn.	13.5	14.5	3.0	8.0
New Haven	13.5	14.5	3.0	8.0

Discount schedule effective November 1, 1932. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 300,000 and 3½ cents on more than 300,000 gallons.

TANK WAGON CHANGES

(Regular Grade Gasoline)

Continental Oil Co., effective January 3, reduced gasoline tank wagon and service station prices 1 cent in Colorado; effective January 4, reduced gasoline tank wagon and service station prices 1 cent at Albuquerque, N. Mex.

Standard Oil Co. (Nebraska), effective January 3, reduced gasoline tank wagon and service station prices 1 cent at Omaha, Neb.; effective January 4, reduced gasoline tank wagon and service station prices 1 cent at Norfolk and Scottsbluff and reduced gasoline tank wagon price one-quarter cent at McCook.

Standard Oil Co. (Kentucky), effective December 31, advanced gasoline tank wagon and service station prices 1 cent at Mobile, Ala.

Atlantic Refining Co., effective January 4, reduced gasoline tank wagon and service station prices 1 cent in Pennsylvania, 2 cents in Delaware and 1 cent in New England states.

Standard Oil Co. of Louisiana, effective December 31, reduced gasoline tank wagon and service station prices one-half cent throughout territory with exception of Alexandria, Chattanooga, Nashville and Bristol, Tenn.; on same date advanced kerosene tank wagon prices 1 cent at all Tennessee points; effective January 2, company reduced gasoline tank wagon and service station prices 1 cent throughout territory with the exception of Shreveport, Bristol and Little Rock, Tenn., where reduction was one-half cent per gallon.

Standard Oil Co. (New Jersey), effective January 4, reduced gasoline tank wagon and service station prices 1 cent per gallon throughout territory.

Standard Oil Co. of New York, effective January 4, reduced gasoline tank wagon and service station prices 1 to 2 cents per gallon in New York and New England states.

Continental Oil Co., effective January 5, reduced gasoline tank wagon and service station prices 2 cents at Cheyenne, Wyo.

CRUDE OIL PRICE CHANGES

Effective January 10, the Ohio Oil Co. reduced the price of Lima, Ohio, oil 10 cents per barrel, making the new price 90 cents.

The Golden Rule Refining Co. has adopted the crude oil price schedule of the H. F. Wilcox Oil & Gas Co., applying it in Kansas, and making it effective January 9. The company's refinery is in Arkansas City, Kans.

E. M. HERR DIES IN NEW YORK

Edwin M. Herr, 72, who rose from messenger boy to the head of one of the biggest industries in the country, died December 24 in his home, 1035 Fifth Avenue, New York. Mr. Herr was vice chairman of the board of directors of the Westinghouse Electric & Manufacturing Co., a director of the American Manufacturers Export Association; the Radio Corp. of America, Westinghouse Airbrake Co., and other organizations. For many years he was a resident of Pittsburgh, where he was president of the Westinghouse Electric & Mfg. Co.

NEWS FOR SALES DEPARTMENTS

Large Decrease in Output of Motor Vehicles in 1933

Production of cars and trucks in the United States and Canada totaled 1,436,000 in 1932, according to an estimate of the National Automobile Chamber of Commerce released last week. This was a decrease of 40 per cent when compared with the total of 2,472,359 for 1931, and is approximately 25 per cent of the peak production of 1929 when 5,621,715 cars and trucks were produced by manufacturers.

The preliminary "Facts and Figures for the Automobile Industry in 1932" released by the association gives considerable data of interest to the petroleum industry as follows:

Cars and trucks produced in United States and Canada	1,436,000
Passenger cars	1,198,500
Motor trucks	237,500
Production of closed cars	1,115,000
Per cent closed cars	93
Wholesale value of cars	$646,500,000
Wholesale value of trucks	$138,000,000
Wholesale value of cars and trucks combined	$784,500,000
Average retail price of cars	$720
Average retail price of trucks	$776
Tire shipments	41,150,000
Wholesale value of parts and accessories for replacements, and service equipment	$250,000,000
Wholesale value of rubber tires for replacement	$275,000,000
Motor vehicles, accessories, service equipment and replacements of parts and tires	$1,309,500,000
Gasoline consumption by motor vehicles, retail value including taxes	$2,382,000,000
Lubricating oil used, retail value	$359,100,000
Registration	
Motor vehicles registered in United States (from state reports)	24,276,000
Motor cars	21,045,000
Motor trucks	3,231,000
World registration of motor vehicles	33,026,000
Per cent of world's automobiles in United States	73
Passenger cars on farms	4,100,000
Motor trucks on farms	880,000
Motor vehicles on farms	4,980,000
Miles of surfaced highways	868,000
Total miles of highways in United States	3,055,000
Highway and street expenditures	$1,900,000,000
Persons employed in Motor vehicle and allied lines	3,700,000
Motor Trucks	
Motor trucks in use	3,231,000
Number of trucks owned by farmers (27% of all trucks)	880,000
Motor truck owners	2,500,000
Common carriers, per cent of all trucks (Interstate, 1.05%; Intrastate, 4.45%)	5½
Contract carriers, per cent of all trucks	8.7
Privately owned and operated trucks	85.8
Total motor truck taxes	$290,000,000
Trucks represent 13% of all motor vehicles, and pay 27% of all motor taxes.	
Railroads using trucks as part of shipping service	100
Motor trucks used by steam railroads	12,000
Motor trucks used by Railway Express Agency	9,247
Motor Buses	
Motor buses in use	99,000
Number of revenue carrier buses	45,000
Consolidated schools using motor transportation	16,700
Buses used by consolidated schools	52,000
Buses used by street railways	12,000
Buses used by steam railroads	4,800
Street railways using motor buses	246
Steam railroads using motor buses	80

TIDE WATER BECOMES MEMBER

BRADFORD, Pa., Jan. 9.—The Tide Water Oil Co., which, through the Associated Oil Co., is one of the largest producers of crude in the Bradford Field, has joined the Pennsylvania Grade Crude Oil Association. The company is also a large purchaser and transporter of Pennsylvania Grade oil, which is refined in its Bayonne, N. J., plant.

Both Exports and Imports of Oil Show Large Decrease During November

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Jan. 9.—Exports of petroleum and products decreased in value from $21,476,876 in November, 1931, to $15,329,343 in November, 1932, which compares with a decrease in value of petroleum and products imported from $5,010,725 in November, 1931, to $2,057,713 in November, 1932, according to the monthly summary, Bureau of Foreign and Domestic Commerce.

The decrease in imports was largely accounted for by the importation of 3,603,573 bbls. of crude (free of duty) valued at $2,469,033 in November, 1931, declining to 1,962,721 bbls. dutiable and valued at $1,237,268 in November, 1932.

The decline in the imports of refined oils was from 2,558,411 bbls. valued at $2,346,481 not dutiable in November, 1931, to 1,271,230 bbls. dutiable valued at $761,513 in November, 1932. Imports of fuel declined in these two periods from 1,960,915 bbls. free to 1,145,650 bbls. dutiable; unfinished distillate from 8,383 bbls. free to 3,740 bbls. dutiable; finished light products (including gasoline) from 586,196 bbls. free to 121,064 bbls. dutiable; kerosene from 2,917 bbls. free to 137 bbls. dutiable.

Paraffin and paraffin wax imports declined from 5,774,869 pounds free in November, 1931, to 2,200,604 pounds dutiable in November, 1932.

Exports of petroleum (crude) declined from 2,449,215 bbls. valued at $2,133,790 in November, 1931, to 1,317,911 bbls. valued at $1,397,545 in November, 1932. With no natural gasoline of record in November, 1931, exports in that month, 1932, totaled 27,047 bbls. valued at $31,267.

Exports of refined oils in November, 1931, totaled 7,631,575 bbls. valued at $17,854,302, declining to 5,281,017 bbls. valued at $12,722,184 in November, 1932.

Exports of gasoline, naphtha and other finished light products declined from 3,722,904 bbls. valued at $8,338,368 in November, 1931, to 2,356,013 bbls. valued at $5,445,434 in November, 1932. Of the gasoline shipments in November, 1931, some 3,562,988 bbls. went abroad in bulk and 159,916 bbls. were exported in containers, compared with November, 1932, shipments of 2,280,389 bbls. in bulk and 75,624 bbls. in containers.

Exports of illuminating oil (kerosene) declined in the periods indicated from 1,205,685 bbls. valued at $2,947,937 to 970,119 bbls. valued at $1,987,710 in November, 1932. There was a smaller shipment of this kerosene in containers in November compared with the same month of the previous year. Of the November, 1931, shipments 952,368 bbls. were in bulk and 253,317 bbls. were in containers, while November exports shows 883,285 bbls. in bulk and only 86,834 bbls. in containers.

Gas oil and distillate exports declined from 2,058,209 bbls. in November, 1931, to 857,571 in last November.

Fuel or bunker oil exports declined from 3,060,433 bbls. in November, 1931, to 2,762,786 bbls. in November, 1932. It is significant in respect to sources of supply for vessels burning fuel oil that while foreign vessels in November, 1931, received of the total of these exports 1,629,409 bbls. and American vessels received 1,431,024 bbls., in November, 1932, American vessels consumed the larger amount of this American bunker oil or 1,585,728 bbls. compared with 1,177,058 bbls. taken by foreign vessels.

Lubricating oil shipments in November, 1931, totaled 638,043 bbls. valued at $4,724,455, compared with 567,329 bbls. valued at $3,847,200. Of these lubricating oils red and pale declined in the period indicated from 399,294 to 339,526 bbls.; black from 39,815 to 33,975 bbls.; cylinder from 198,934 to 193,828 bbls.

Exports of lubricating greases declined from 6,433,798 to 4,771,311 pounds in the period from November, 1931, to November, 1932.

Paraffin wax exports declined from 30,576,254 pounds in November, 1931, to 25,520,982 pounds in November, 1932. Of the November, 1932, exports of paraffin wax, 10,013,128 pounds were unrefined and 15,507,854 were refined.

VALUABLE BOOK ON ROAD OIL

Paul Truesdell, of the Universal Oil Products Co., 310 South Michigan Avenue, Chicago, Ill., is the author of a valuable booklet entitled, "Wanted Road Oil and Asphalt to Pave 2,000,000 Miles of Dirt Roads." In the booklet, Mr. Truesdell points out the large potential market for road oils and petroleum asphalts and also discusses the specifications required in satisfactory utilization. Copies of this booklet are available by writing to the Universal Oil Products Co. and asking for U.O.P. Booklet No. 114.

REVISE REVENUE BILL

WASHINGTON, D. C., Jan. 9.—Representative Ayres (D., Kansas), has offered amendment to the 1932 Revenue Act which would "absolutely prevent" the invasion of the American gasoline market by a cheap product disguised under the name of Rumanian or Soviet naphtha which demoralized the oil trade of Michigan." Representative Ayres said this "invasion" also had "affected wage scales, touched the stability of banking institutions and altered the currents of retail trade in that State."

"Only a decision recently issued by the Treasury Department has temporarily closed the loophole in the present act by which these cheap foreign products were admitted either duty-free or on payment of an excise tax of one-half cent per gallon. This naphtha was delivered at Detroit at a price so low that it could be offered for sale at less than the wholesale delivery cost of American gasoline."

FINANCING IS REFUSED

CHATHAM, Ontario, Jan. 7.—The Saskatchewan provincial government has refused the offer of Imperial Oil, Ltd., and the British-American Oil Co. to advance funds in anticipation of gasoline tax revenue, conditional on the 1932 motor license period being extended to April 1, 1933. Announcement has been made by the Alberta provincial government that a similar offer would be refused by that province.

Plan to Reduce Evasions and Exemption in Kansas

Gasoline tax exemptions in Kansas at the peak period last summer ran almost 50 per cent of the collections, according to J. A. Motter, secretary of the Kansas Oil Men's Association, which is attempting to have important changes made in the state's tax law in order to reduce exemptions and also prevent other evasions of the tax.

The following table shows the tax collections and exemptions for the first 11 months of 1932:

Month—	Collections	Exempt's.
January	$646,786.06	$72,542.22
February	654,804.35	67,891.44
March	639,607.63	91,461.82
April	738,158.10	146,008.77
May	908,896.67	218,112.21
June	883,446.86	269,411.94
July	1,212,967.62	433,655.79
August	1,068,017.26	507,627.96
September	1,053,651.34	386,750.46
October	902,734.34	279,906.60
November	811,209.34	176,579.46

Members of the Kansas association have suggested the following amendments to the state gasoline tax laws:

1. Tax collectors' records shall be open and accessible to the public for inspection at all times and accounts audited at stated times.

2. Present price posting clause amended so as to be enforceable and sufficient penalty imposed for nonposting.

3. Present penalty for infraction of tax law should be increased on both fine and imprisonment. One-half cent per gallon recommended.

4. Sufficient surety bond posted by all distributors and license issued by tax collector, to be revoked upon conviction of infraction.

5. More clearly define clause in regard to motor fuel, broadening the term to avoid blending or substitution.

6. To prohibit the delivery of motor fuels or any inflammable or dangerous liquid into retail storage or other receptacles for retail purposes between the hours of 8 o'clock p. m. and 5 o'clock a. m.

Award Large Contracts for Gasoline in Pennsylvania

HARRISBURG, Pa., Jan. 7.—The Atlantic Refining Co. and Vacuum Oil Co. were awarded contracts for sale of gasoline and oil to state-owned motor vehicles this year.

The Vacuum company will sell gas and oil in 46 counties where they now have or will furnish facilities on main-traveled roads. Its bid was 3.5 cents below the posted retail price for gasoline and a flat rate of 12 cents a quart for oil.

The Atlantic company will sell in the remaining counties. Its bid was 3.6 cents off the posted retail price for gas, and a flat rate of 15 cents a quart for oil. Last year the contract for the majority of the counties was held by the American Oil Co.

REDUCE CITY GASOLINE TAX

Reduction to one-half cent per gallon of the St. Louis, Mo., city gasoline tax rate of 1 cent was approved January 6 by the legislative committee of the board of aldermen. The vote for reduction was 4 to 1, strong opposition to continuation of the higher rate being voiced at a public hearing. The city of Joplin, Mo., recently voted to repeal its entire gasoline levy.

NEWS FOR PETROLEUM REFINERS

Bell Company to Increase Plant Cracking Capacity

The Bell Oil & Gas Co., Tulsa, has approved an appropriation to completely remodel and enlarge its Dubbs cracking unit which has been in operation at its Grandfield, Okla., refinery for several years. The capacity of the unit is to be increased from 1,000 to 1,700 bbls. daily. The rebuilt unit will produce approximately 50 per cent gasoline of high octane rating. New treating equipment and additional storage is included in the improvement program which will represent an expenditure of $100,000.

The company also has plans under consideration for the enlargement of its crude oil skimming capacity and also its pipe line system which connects to fields located in North Texas. The refinery at present has a rated crude oil capacity of 4,500 bbls. daily.

"We have considered all phases of the general economic situation and particularly those of the oil industry," Albert Finston, vice president and general manager of the Bell company, said in announcing the refinery improvements, "and we have come to the conclusion that there will not come a time for many years when we can obtain so much for so little money as now. Also by present expansion there is satisfaction in providing employment for so many worthy people at a time when it is badly needed."

Derby May Build Gasoline Pipe Line From Refinery

WICHITA, Kans., Jan. 7.—The Derby Oil Co. of this city has under consideration the construction of a gasoline pipe line from its local refinery to McPherson, Kans., where the company expects to build a large bulk station. The station will have facilities for truck and tank car loading, being located along the Missouri Pacific Railroad. The pipe line will be about 60 miles long.

The line is to be built in order to serve Derby customers to the west and northwest. Kerosene and distillate will be transported in the line as well as gasoline. The Dickey Oil Co. recently completed a refinery at McPherson and the Globe Oil & Refining Co. has a plant under construction.

DAKOTA PLANT OPERATING

RAPID CITY, S. Dak., Jan. 9.—Rex Refining Co., recently organized by business men of this city for the purpose of processing crude oil available from Osage, Wyoming, began operation of its new plant here today. The plant has a daily capacity of 150 bbls. and new equipment is on the grounds to increase this capacity to 300 bbls. Products are said to include gasoline, tractor fuels and cylinder stocks. Crude oil will be brought to the plant by trucks. Farmers in the district are contracting for the tractor fuel supply.

REBUILD CEDAR GROVE PLANT

SHREVEPORT, La., Jan. 7.—Officials of the Cedar Grove Refining Co. expect to rebuild the refinery here which was badly damaged by fire on January 4. E. F. Griswold, who is president of the Cedar Grove company, has been operating the plant under lease since last May and had made several improvements in plant equipment previous to the fire.

The refinery is owned by Pete Dartois and Joe Slattery, who operated it for several years. The damage to the plant, including loss of refinery products, was estimated at $50,000.

Standard of New Jersey Sees Expanding Market for Oil Burner Distillates

The Lamp*

The major developments during 1931-1932 in the oil burner industry were not as dramatic as in some previous years, but analysis of them indicates that they materially increased the industry's underlying strength and stability. Important among these developments were:

1. A leveling of the seasonal retail sales curve.
2. A more intelligent study of profitable additions to dealer lines.
3. Simplification of burners.
4. Better understanding of pricing policies.
5. More constant level in domestic fuel oil prices.
6. Large increase in range burner production and sales.
7. Increase in number of special boilers and boiler-furnace units.
8. Improved and lower priced automatic controls.

The average oil burner dealer and small distributor of fuel oil have found that many of the products which they have taken on have proved other than ideal companion lines to fuel oil and oil burners, and have found that such products are better placed in a separate sales organization handling each item. For this reason the great majority of oil burner dealers have turned their attention to products such as boilers, controls, water softeners and humidifiers. The tendency at the present time is for the sales unit to sell the combination unit of oil burner and boiler where it is at all possible to do so, and this will insure greater satisfaction and more economical operation to the user.

Prices and pricing policies during the past year have shown indications of a more intelligent understanding replacing price panics. A considerable number of both manufacturers and dealers learned to distinguish between pricing down and price cutting, and some manufacturers and dealers had it forcibly brought home to them by the profit and loss statements that lower prices are not, an end, but may properly be made a means to an end—the end being in larger net profits.

From an engineering point of view, the introduction and wider use in 1931 of the electrical clock thermostat represented a definite contribution to better automatic heating service. So did the accelerated trend toward special oil burning boilers and wider use of boiler-burner units which are being introduced by an increasing number of manufacturers and distributors. Many of the major concerns have initiated ideas of retail sales training programs that have been carried on during the past year and have more than proved themselves valuable as they have improved the selling technique, and better personal sales work in the years to come. Standard Oil Co. of New Jersey has done this successfully with a number of products.

The successful selling of oil burners and fuel oil in the domestic field is predi-

(Continued on Page 33)

*Published by the Standard Oil Co. of New Jersey.

Consolidate Mid-Continent Subsidiaries of Tide Water

The consolidation of all the Mid-Continent subsidiaries of the Tide Water Oil Co. (New Jersey) became effective on January 1, and the Tidal Oil Co., organized under the laws of Oklahoma, has changed its name to Tide Water Oil Co. and has taken over as of January 1 all the business and properties of Associated Producers, Tidal Refining Co., and Tide Water Oil Sales Corp. in the Mid-Continent division. The Tide Water Oil Co. (Oklahoma) will continue its principal offices in the Philcade Building in Tulsa.

The Tide Water Oil Co. (Oklahoma) will carry out all contracts and engagements of the four companies above listed in the territory specified and the reorganization will cause no interruption in the business of any of the companies involved. The management will be identical with that previously in control of the four companies.

The division offices for Texas, Louisiana, Arkansas and New Mexico, which have been located in Fort Worth, Tex., are being transferred to Houston.

MAY BUILD SMALL PLANT

CUT BANK, Mont., Jan. 9.—Santa Rita Oil Co. announces plans to start immediate construction work on a 4-inch pipe line from their its properties on the Blackfeet Indian oil land reservation near this city to railroad loading 3 miles distant. Reports are current that the Santa Rita company will build a small refinery east of Cut Bank this spring. The Montana-Dakota Power Co. is building a natural gasoline absorption plant to take wet gas from the reservation wells.

Sinclair Blames Bootleg Oil for Gasoline Prices

In announcing a 1-cent general reduction in gasoline tank wagon and service station prices throughout the greater part of its marketing territory, the Sinclair Refining Co. marketing subsidiary of the Consolidated Oil Corp. issued the following statement:

"The reduction in gasoline prices effective this week was an inevitable consequence of the various cuts in the price of crude oil. We were not in favor of crude price reductions but when they occurred there was no escape from reductions in refined prices. Conditions were made worse by the continued production of large amounts of crude in excess of the allowable in Oklahoma and Texas. This bootleg crude, always sold far below the posted price, comes on the market in the form of cut price gasoline. Until the trend of crude prices is reversed and proration orders honestly and effectively enforced—if that is possible—demoralized gasoline prices will continue."

ADDING TO COASTAL REFINERY

MOBILE, Ala., Jan. 7.—A construction program involving the installation of an acid treating plant and addition of 95,000 bbls. more storage, is under way at the plant here of the Coastal Petroleum Corp. The new storage consists of one 55,000-bbl. steel tank and two 20,000-bbl. tanks. The plant, completed early in 1932, has a skimming capacity of 6,000 bbls. with a cracking capacity of 3,500 bbls.

Announce Two Committees for Division of Refining

Personnel of the A.P.I. committees on corrosion of refinery equipment and on accident prevention in refineries has been announced by Walter Miller, Continental Oil Co., Ponca City, Okla., chairman of the central committee on refinery technology of the division of refining. R. P. Anderson of the Institute staff is secretary of the central committee, and the secretaries of the two subordinate committees likewise are members of the staff. D. V. Stroop, engineer, is secretary of the committee on corrosion of refinery equipment, and Walter Samans, Atlantic Refining Co., Philadelphia, is chairman. H. N. Blakeslee, director of the Institute department of safety, with headquarters at Dallas, is secretary of the committee on accident prevention in refineries, and C. W. Smith, Standard Oil Co. (Indiana), Chicago, is the chairman.

Membership on the two committees is as follows:

Committee on corrosion of refinery equipment: F. C. Braun, Gulf Refining Co.; E. S. Dixon, The Texas Company; J. W. Griswold, Crew Levick Co.; A. E. Harnsberger, Pure Oil Co.; C. H. Haupt, Standard Oil Development Co.; K. V. King, Standard Oil Co. of California; L. G. Metcalf, Union Oil Co. of California; N. B. Musser, Sun Oil Co.; J. W. Newton, Magnolia Petroleum Co.; C. J. Nobmann, Shell Oil Co.; L. W. Parsons, Tide Water Oil Co.; S. S. Shaffer, Humble Oil & Refining Co.; Thomas D. Tifft, Sinclair Refining Co. and W. G. Whitman, Standard Oil Co. (Indiana).

Committee on accident prevention in refineries: C. P. Anderson, Richfield Oil Co. of California; J. C. Bernd, Sinclair Refining Co.; R. W. Black, Standard Oil Co. of New Jersey; J. S. Boylan, Continental Oil Co.; J. H. Brown, Tide Water Oil Co.; C. W. Coleman, Gulf Refining Co.; V. R. Currie, The Texas Company; R. E. Donovan, Standard Oil Co. of California; J. H. Herbert, Standard Oil Co. of Ohio; W. C. Lynch, General Petroleum Corp.; S. H. McKenty, Atlantic Refining Co.; Ray E. Miller, Natural Gasoline Association of America; C. J. Nobmann, Shell Oil Co.; A. A. Odell, Barnsdall Refineries, Inc.; G. F. Prussing, Union Oil Co. of California; W. P. Reymond, Jr., Standard Oil Co. of Louisiana, and C. L. Swim, Skelly Oil Co.

GOVERNMENT LETS CONTRACTS

NEW YORK, Jan. 9.—Standard Oil Co. of New Jersey has been awarded an order for 105,000 gallons of Grade B fuel oil, for delivery to the Lighthouse Bureau, Staten Island, New York, at 2.02 cents per gallon. The bureau also awarded an order to the Hudson Oil Co. for 12,000 gallons of Lighthouse "A" engine oil.

Standard Oil Co. of Louisiana has been awarded by the U. S. Engineer at New Orleans orders for 3,000 bbls. of fuel oil, at 75 cents per barrel, and 120,000 gallons of fuel oil, at $1.50 per barrel.

The Bureau of Supplies and Accounts, Navy Department, Washington, D. C., will open bids January 17 on Schedule 9,371 for 36,000 gallons of petroleum residuum for delivery at Norfolk and 10,000 gallons for delivery at Mare Island.

MOVES MID-CONTINENT OFFICES

CHICAGO, Jan. 7.—Mid-Continent Petroleum Corp., today moved its Chicago offices from 624 South Michigan Avenue to the twenty-fourth floor of 310 South Michigan. Walter J. Herr is manager of the office.

NATURAL GASOLINE MANUFACTURE

Call Meeting of All West Texas Plant Operators

All companies operating or interested in natural gasoline plants in the Panhandle Texas area have been asked to send representatives to meet with the Texas Railroad Commission in Pampa, Tex., on January 16. The meeting is scheduled to start at 9 o'clock in the Rose Building and full consideration will be given to the applications filed after the commission ordered strict regulation of the field on December 30. Although complications have hindered the operation of the commission's original order the Pampa meeting is expected to provide a basis for outlining plans of operation which will not be opposed.

As part of the plan to formulate an acceptable and equitable operating procedure for the field, the commission has asked that every gasoline plant be considered as a separate unit and data will be requested for use by the commission showing the volume of gas going to each unit, the disposition of the residue, a list of wells and their locations which supply gas to the plant and a study will also be made of the individual wells to ascertain the potential productivity of each in arriving at an equitable proration plan.

There are 34 natural gasoline plants in the area under discussion and these have a combined capacity of 1,420,500,000 feet daily. At present these plants are operating about one-half capacity. The Standish Oil Co., a subsidiary of the Phillips Petroleum Co., has the largest number of plants in the field and these also have the largest combined capacity. The Phillips plants total 11 in number and have a combined capacity of 689,000,000 feet daily. The Coltexo Corp. is operating three plants with a combined capacity of 180,000,000 feet, the Skelly Oil Co. three plants with a combined capacity of 161,000,000 feet, the Magnolia Petroleum Co. with a combined capacity of 65,500,000 feet and the Shell Petroleum Corp. three plants with a combined capacity of 55,000,000. Nine other companies are represented in this area, each operating one unit.

Stocks of Natural Gasoline Reduced to New Low Point by First of December

Natural gasoline stocks in the United States reached a new low point on December 1 when the total held was reduced to 20,078,000 gallons according to the Bureau of Mines. This reduction was made despite a small increase in the output. All areas reduced stocks except the Appalachian where there was also a high percentage increase in the production due to depend upon local refiners and the development of independent jobber accounts to absorb the production of the State. It is a further indication that local refiners are turning to natural gasoline as a means of improving the volatility requirements of winter motor fuels, the standard for which has been established by a few successful marketers who have to crack, is to increase the percentage of natural gasoline in the blend.

This situation not only describes the position of many Oklahoma refiners but Mid-Continent refiners in general and aside from the government figures the trend of the day to day spot market shows Mid-Continent refiners are taking increasing amounts of natural gas during the present cold weather. Another important factor in reducing the Oklahoma stocks is the greatly reduced production of natural gasoline in the State. This November the total output was 29,900,000 gallons whereas a year ago the production totaled 37,800,000 gallons. The natural decline in the gas production in the Seminole Field accounts for a large share of the State's decline, while a substantial decrease is also shown in the output from plants in the Osage Field.

Stocks were reduced in Texas also and the production there has declined compared to what it was a year ago, but not in proportion to that of Oklahoma. Throughout the Panhandle area production has declined somewhat but is still maintained above all other fields. The November output was slightly above that of October due to increased takings of residue gas for pipe line delivery to distant points.

California shows the largest drop in production for the year as every important field registered a substantial decline. Production here has been influenced by prorating crude production and this is particularly true in the Kettleman Hills Field. Although similar conditions exist in some fields in Oklahoma and Texas, the effect on the natural gasoline output is not as pronounced and at such a time as the need for crude increases, the output of natural gasoline in California may be expected to be increased considerably above the output reported at present.

To conveniently trace the course of natural gasoline stocks over the past year, the accompanying table was prepared.

NATURAL GASOLINE STATISTICS FOR NOVEMBER
(Thousands of gallons)

	Natural gasoline: Production Nov., 1932	Production Oct., 1932	Production Nov., 1931	Jan.-Nov., 1932	Stocks end of month Nov., 1932	Stocks end of month Oct., 1932	Blended motor fuel, November: Natural gasoline used	Naphtha or other oils used	Stocks end of month
Appalachian	6,200	5,400	6,100	59,300	1,695	1,669	34	56	94
Ill., Ky., Ind.	800	700	1,000	7,300	205	229	...	...	...
Oklahoma	29,900	31,500	37,800	349,100	7,011	9,648	26	28	36
Oklahoma City	6,600	6,200	6,400	70,600	917	1,403	...	...	...
Osage County	3,700	4,300	5,200	44,100	766	1,059	...	...	5
Seminole	8,100	9,300	15,000	104,600	3,047	4,936	1	...	1
Rest of State	11,500	11,700	11,200	129,800	2,311	2,250	25	28	32
Kansas	2,200	1,900	2,600	22,400	508	672	49	...	33
Texas	29,500	29,300	33,000	324,000	6,155	7,258	76	83	26
Panhandle	14,300	13,600	16,600	156,300	3,291	4,077	1	1	...
North Texas	1,900	2,000	2,300	23,000	547	449	9	...	12
West Central	7,300	7,500	7,800	80,000	1,307	1,972	...	...	...
Rest of State	6,000	6,200	6,300	64,700	1,010	760	66	82	14
Louisiana	3,200	3,600	4,900	43,200	744	924	47	8	11
Arkansas	1,400	1,500	1,900	18,100	250	254	...	...	...
Rocky Mountain	5,300	5,800	5,800	57,300	1,021	774	21	3	8
California	41,400	43,100	51,800	490,900	2,450	2,772	...	...	...
Huntington Beach	1,300	*1,300	1,500	15,700	.....	.....	...	...	...
Kettleman Hills	10,200	*10,400	13,700	121,900	.....	.....	...	...	...
Long Beach	7,700	8,000	9,700	96,700	.....	.....	...	...	...
Santa Fe Springs	7,500	8,400	9,300	91,900	.....	.....	...	...	...
Ventura Avenue	3,400	3,200	4,200	36,200	.....	.....	...	...	...
Rest of State	11,300	11,800	13,400	127,500	.....	.....	...	...	...
Total	119,900	122,800	144,900	1,381,100	20,078	24,200	253	178	210
Daily average	4,000	3,960	4,830	4,120	.....	.....	8	6	...
Total (thousands of barrels)	2,855	2,924	3,450	32,884	478	576	6	4	5
Daily average	95	94	115	98	.....	.....	...	...	...

*Revised.

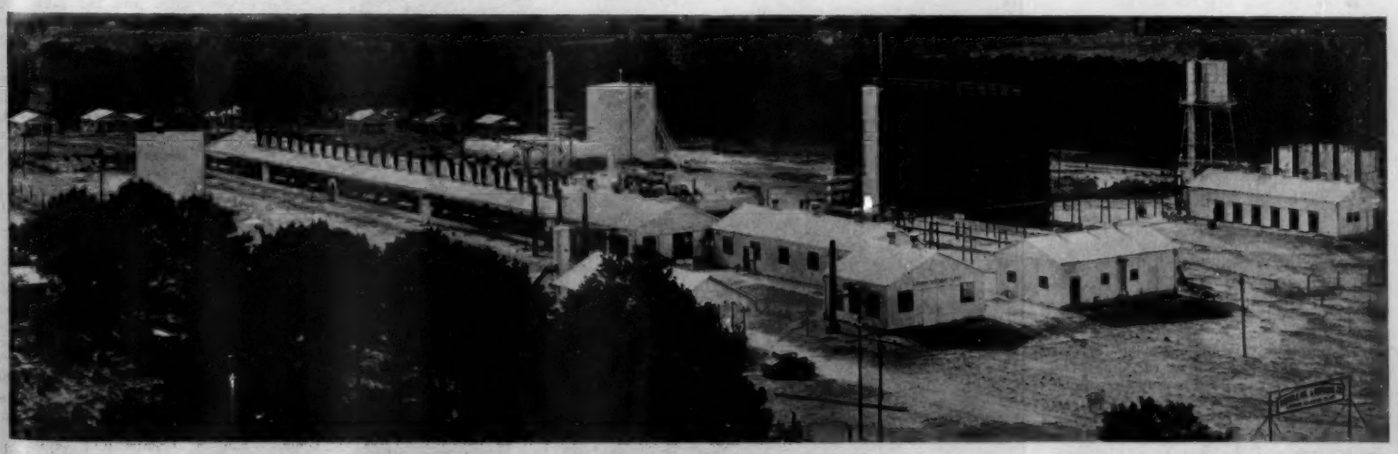
to greatly increased seasonal demands for the residue gas as industrial and household fuel.

Stocks of natural gasoline in Oklahoma declined from 9,648,000 gallons on the first of the month to 7,011,000 gallons at the close of the month. This represents a withdrawal from stocks of about 87,000 gallons daily in Oklahoma alone and this is significant because Oklahoma has had featured the natural blend. Oklahoma refiners also feel the need of further increasing the octane value of their motor fuels in order to maintain a sure footing in the northern markets where they come into direct competition with highly cracked gasoline of Chicago and eastern refiners and the means of improving the octane value in those instances where the Oklahoma plant is not equally equipped

STOCKS OF NATURAL GASOLINE AT PLANTS AT THE CLOSE OF EACH MONTH EXPRESSED IN GALLONS

1932	
January	34,000,000
February	36,800,000
March	39,778,000
April	44,554,000
May	44,279,000
June	34,106,000
July	31,809,000
August	25,888,000
September	24,628,000
October	24,200,000
November	20,078,000

Largest Natural Gasoline Plant in the East Texas Field Built by Humble Oil and Refining Company



Humble Oil and Refining Co's. natural gasoline plant on the London lease, Rusk County in the East Texas Field. This plant is the largest one in the East Texas Field, having a capacity of 10,000,000 feet per day. The company operates another plant at Kilgore which has a capacity of 5,000,000 feet per day

East Texas Situation as Seen by President Ames

(Continued from Page 9)

donment of control would mean the introduction of chaos.

Producer Must Have Ratable Share of Outlet

Assuming, therefore, that we must have some control of production, the next question which arises is how much control; how much control is to be exercised, and over whom?

Historically, the law of capture has been applied to crude oil, meaning that every surface owner had a right to drill into the oil formation and capture all the oil which he could take through his well, regardless of the fact that he might be draining oil from beneath his neighbor's land. As this law of capture applied to all surface owners, it was necessary for them all to engage in the business of capture in order to protect their rights. It is this law of capture that makes control necessary, and control under a conservation program limits the evil resulting from the law of capture. Under a sound conservation program, therefore, the law of capture is modified to this extent. The surface owner has a right to capture only his ratable share of the outlet of the pool. Therefore, in any pool, control must be exercised in such manner as to give each landowner his fair share of the production.

It is not always easy to ascertain the fair share of each surface owner. There are various factors to consider, such as acreage, open flow, bottom hole pressure, the opinion of competent petroleum engineers, and possibly others which come to the mind of practical oil producers. One thing, however, is clear in my mind, namely, that no producer should be allowed to decide for himself his fair share. Human nature is too weak. No man can sit as a judge in his own case. It is likewise clear that no producer should be allowed to decide what his neighbor's fair share should be. Again, human nature is too weak. These two statements are obviously true, and being true, the result necessarily is that there must be some impartial tribunal authorized to make the decision.

Each Pool Must Have Its Share of Outlet

Having demonstrated that production must be controlled, and that each producer is entitled to his reasonable share of the production of a given pool, the next question which arises is the proper measure by which to determine the production of a given pool. Here, again, it is obvious that no pool can be allowed to determine for itself how much it should produce. It might wish to produce to capacity, regardless of the rights of other pools. Again, it is obvious that no pool should be allowed to determine how much a competing pool should produce. The answer then must be given by an impartial tribunal.

What Is Reasonable Market Demand?

We are now led logically to the last and best conservation statute which has been passed by your legislature, which, following the example of Oklahoma, prescribes as the basis of production the reasonable market demand. This is a perfectly logical step in a sound conservation program, because if we are to have control of production within a given pool, if we are to have proration as between producers, and if we are to have proration as between various pools, we must have some yardstick by which to measure the outlet, and the best one so far devised is that contained in the reasonable market demand statutes. It is obviously wasteful to produce more oil than the market requires, and it is obviously the soundest conservation policy to limit production to the requirements of the market. A market demand statute, therefore, prescribes a perfectly sound principle, but like any other principle, it requires a sound administration. Let us see, therefore, if there are some sound rules which can be fairly applied to existing circumstances in administering a market demand statute.

Bearing in mind that the public welfare is the basis of a conservation program, it is obvious that our petroleum supplies will be best conserved if they are withdrawn from the earth only as needed for consumption, and if they are produced without waste. The two factors, therefore, which should be constantly borne in mind by the regulatory body are, first, that there should be no waste, and second, that no more oil shall be produced than is reasonably needed to supply the consumer. It should also be remembered that gasoline and lubricating oils are the products of petroleum, which are of greatest importance; that we have an almost inexhaustible supply of coal, and that a reasonable demand of the market would not include fuel oil for the purpose of displacing coal in its uses to which coal is well adapted.

Nominations Not Measure

From what has been said, it is obvious that the nominations of the purchasers is not the proper measure of market demand. It is a factor to consider, but not the controlling one. Purchasers, for some ulterior purpose, might nominate more than the market requirements, or they might not nominate at all. Brokers might nominate in order to secure some oil for speculative trading purposes. A market involves both buyers and sellers, and if the nominations of purchasers alone are considered, the seller is left out of the equation. The seller's protection is the market requirement, and if the allowable exceeds this requirement, he is at the mercy of the buyer. A balance between production and consumption accomplishes the purpose of conservation, prevention of waste, and at the same time protects the seller from the caprice of the buyer.

It is relatively easy to ascertain the requirements of the market. For about two years expert committees, appointed by the Federal Oil Conservation Board and by the American Institute, have been forecasting probable consumption over periods of six months at a time. Experience has demonstrated that these forecasts are remarkably accurate. They are given wide publicity, and will be of great value to the regulatory bodies charged with the duty of ascertaining market requirements. When, however, the market requirements for the country as a whole have been ascertained, the next problem is for each state to decide what share of the total it should have, and here, under existing machinery, we are left with the necessity of each state making the decision for itself.

The forecasts referred to indicate that during the first quarter of this year, the total production of the United States should not exceed 2,000,000 bbls. per day. If the production in other states remains where it is, the last order of your railroad commission prescribing a total for Texas of 757,150 bbls., will bring the total United States production to the required figure. When each state, however, has decided for itself what its share of the total should be, it then must allocate this amount to the various pools within the states. Production can be roughly classified as settled, flush, and new. There are approximately 350,000 oil wells in the United States producing an average of about a barrel a day. These may be referred to as wells of settled production. It is obvious in the public interest that these wells should be preserved. They will continue to produce for many years, but if they are abandoned, the oil they contain may be lost on account of the difficulty and expense of restoring the wells. A sound conservation program, therefore, calls for the preservation of this supply, and therefore, these wells of settled production should be allowed to produce without restraint. With so much excess capacity already in existence, it is obvious that the public interest will not be served by bringing in new pools, and therefore, a sound conservation program involves drastic limits upon the production of any new pool, so drastic as to discourage wildcatting. There will be time enough for wildcatting when the public requires new discoveries.

With this drastic limit on new discoveries, and with the production of all wells of settled production, the existing flush pools should be allowed to supply the necessary amount to meet the requirements of the market.

Regulatory Authority Required

As no producer can be allowed to decide for himself how much he may produce, as no pool can be allowed to decide for itself how much it may produce, and as each state must decide for itself what is its share of the total market demand, it is necessary that there should be an impartial tribunal set up for the purpose of these three decisions. You have that tribunal in Texas. The law vests these powers in your railroad commission. Your commission has just made an order in which it has undertaken to discharge its duty concerning all three of these functions. There was no yardstick by which the commission could measure its duty in respect of any one of these particulars. It has many conflicting points of view presented and many conflicting interests to decide. It has decided them. There is a yardstick, however, which the commission can apply after the order has been put into effect to determine whether or not it has correctly appraised the entire situation. If, after this order has been rigidly enforced, there is any production anywhere in the state which cannot be sold at the posted price, then the order has fixed the allowable too high, because there must be an outlet at the current prices for all the oil allowed or else the supply exceeds the requirements of the market. Every intelligent person interested in the petroleum industry should assist the commission in the rigid enforcement of this order, and if after its rigid enforcement, you still find unconnected wells and distress crude, you have certain and convincing evidence to present to the commission to prove the necessity for reducing the allowable.

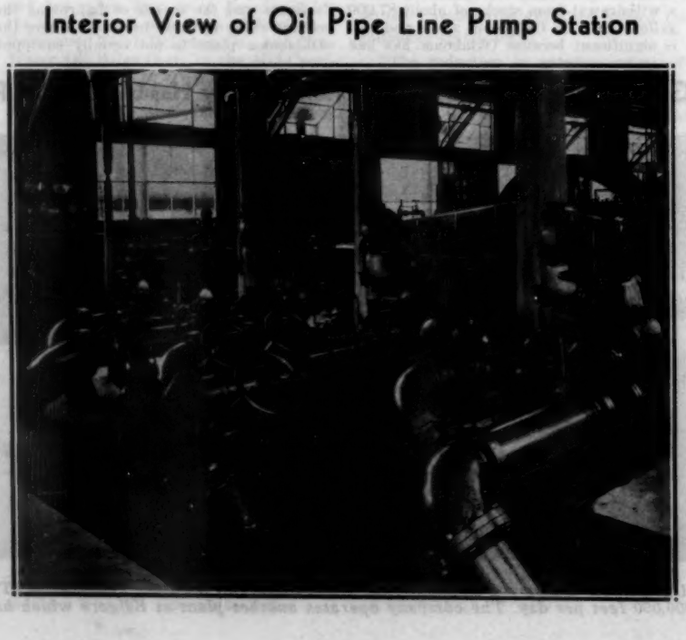
Interstate Co-operation

A wise administration of the market demand statutes require co-operation between the states in order that they may jointly reach a conclusion as to what is the reasonable demand of the market, and in order that they may agree between themselves upon the allocation of the demand. Perfect administration of your market demand statute can very easily be frustrated by unsound and extravagant production in the surrounding states, or in California. This co-operation between the states is the basis for the recommendation of the Federal Oil Conservation Board that there should be an interstate compact or agreement. Such an agreement for these purposes would be helpful, but in the meantime, means should be devised for formal or informal contacts between the regulatory bodies of the principal oil-producing states.

Conclusion

The principal oil-producing states, including your own state, its executive and legislative representatives, its railroad commission, and the industry as a whole, may all congratulate themselves upon the progress of the conservation movement. In the face of tremendous overproducing capacity, there has been no actual overproduction. Waste is being gradually diminished, and sounder thinking within the industry is increasing. More enlightened and far-seeing political leaders are interesting themselves in the public welfare phase of the conservation movement. An increasing spirit of fairplay and good sportsmanship is developing within the industry, and while there are hurdles ahead, they are not insurmountable. Let us start the New Year with a determination to surmount them.

Interior View of Oil Pipe Line Pump Station



CHANGES IN JONES COUNTY

FORT WORTH, Tex., Jan. 7.—The Trentex Refining Co. is building a 170-bbl. refinery at Trent to operate on crude oil run from the Noodle Creek Pool, a short distance north in Jones County. Anderson Brothers of Merkel own this refining company, and also own interest in some production in the Noodle Creek Pool. They may drill a deep test near the refinery, but this is only tentative at the present time and the plan may be dropped. V. E. Smith will be superintendent of the plant, which is located in Section 37, Block 19, T.&P. Survey.

Dunnigan Brothers, who have production in Taylor County, which has been going to the Marathon Refining Co. at Fort Worth, are now erecting a tank on their lease from which oil may be trucked to the Moutray Refining Co.'s small plant at Hawley in Jones County. Production from their lease runs around 1,000 bbls. per month.

ORGANIZE AUTOMOTIVE GROUP

The Mid-Continent Automotive Association, composed of all employes of transportation departments of oil companies in Bartlesville, Okla., elected the following officers for 1933: President, Frank Pierce, Indian Territory Illuminating Oil Co.; vice president, Roy Woods, Empire Companies; secretary-treasurer, Frank Coleman, Phillips Petroleum Co.

Safety Program Leaves Out Banquets, Oratory

(Continued from Page 13)

tain features of it have been continued. Each department received a distinctive flag, which was to be kept flying so long as the department operated without a lost-time accident. In the event of a lost-time accident the flag had to be taken down for the remainder of the calendar month. The contest, won by the light oil department, was to close at the end of six months, but when the time came one department's flag was down, owing to an accident having occurred. The men in this department, their pride hurt as a result of inability to float their flag at the climax of the competition, protested vigorously against being compelled to emerge from the contest under a cloud. They declared they were simply the victims of a bit of ill luck. So it was decided to make the flag plan a permanent one and the department insignia now wave throughout the year except when an accident shoves the flag into retirement till the end of the month.

Various other devices are employed to keep interest alive. The manufacturing department, for example, has at each of its 13 refineries a board bearing the names of the 13 plants in a horizontal row. Opposite each name a red light or a green light burns—green if the refinery has a perfect no-accident record, red if there has been an accident. All refineries start the calendar month with a green light, and the green light remains so long as there is no accident.

The effectiveness of the campaign against accidents is indicated by the accident frequency rate of the Continental Oil Co. as compared with the accident frequency rates of national average (major oil companies). In the first six months of 1931 the accident frequency rate of the Continental in all departments was 10.8 as compared with the national average rate of 18.0.

Employes Complimented by President

Mr. Moran in a statement to employes at the time expressed gratification over this showing, saying: "This is a very favorable comparison, but I have set as an objective for the entire year of 1931 a frequency rate of 8.0. In order to effect this reduction it will be necessary for every employe to make a special effort during the remaining six months."

The high mark set by Mr. Moran was not achieved, the accident frequency rate for the entire year being 10.6. However, the records for the first seven months of 1932 reveal a rate of 8.2, only a trifle short of the objective named for 1931 by the company head.

There was a decrease of 23 per cent in the number of accidents in 1931 as compared with 1930 and a decrease of 24 per cent in the first seven months of 1932 as compared with the same months in 1931. There were 183 accidents in the Continental's automobile fleet in the first six months of 1930, 86 in the first half of 1931 and 54 in the first half of 1932.

In the first seven months of 1930 there were 235 lost-time accidents in all departments of the Continental's operations, 104 in the same months of 1931 and 66 in the corresponding period of the present year. Ten units of the manufacturing department had clean records for the first seven months of 1932. The Ponca City refinery, employing 600 men, suffered only two minor lost-time accidents in that time. The whole manufacturing department, with 1,130 employes, recorded only seven lost-time accidents in the first seven months of this year.

The cost of lost-time accidents to the company in 1931 was 31 per cent less than it was in 1930, and the cost in the first half of 1932 was 48 per cent less than it was in the same period of 1930. Thus is shown the purely commercial advantage of safe practices around refineries and oil fields. The suffering and loss of usefulness prevented are beyond reckoning.

Committee on Taxation Completes Organization

NEW YORK, Jan. 9.—Further activities of the American Petroleum Industries Committee were mapped out at a meeting held in American Petroleum Institute headquarters January 6, and preliminary plans were made for field work. These contemplate the organization of local committees in states where they are not already functioning.

Discussion indicated the committee intends to conduct a campaign of tax education, both within and without the industry, particularly as regards Federal, state, county and community levies upon gasoline. The group is interested also in legislation affecting the operation of trucks and other motor vehicles, and plans to support, in co-operation with other organizations, such legislation as is believed to be in the public interest.

B. H. Markham, newly appointed director of the committee, and Paul E. Hadlick, secretary, outlined work already done. E. S. Hall of the Standard Oil Co. of New Jersey, New York, secretary of the committee, presided in the absence of Chairman H. T. Klein, of The Texas Company, New York.

The next meeting will be held in New York on January 25.

STERLING TO FORM COMPANY

AUSTIN, Tex., Jan. 9.—Governor Ross S. Sterling, one of the founders of the Humble Oil & Refining Co., will create another oil company when he leaves the governor's office January 17. It will be the Sterling Oil Co. and close personal friends of the governor will be associated with him in the business undertaking.

Crude Oil Prices

(Continued from Page 25)

Red Coulee, Alberta	1.55
Lea County, N. Mex.	See note below
Maljamar (Dec. 15, 1932)	.45
Artesia-Jackson (Dec. 15, 1932)	.50

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County, effective December 17, posted by Shell Petroleum Corp., 50 cents; effective December 15, 1932, Humble Oil & Refining Co., 50 cents. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

Eastern States

JOSEPH SEEP PURCHASING AGENCY
(Effective October 3, 1932)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$1.72
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	1.42
Penna Grade Oil in Eureka Pipe Line Lines	1.37
Penna Grade Oil in Buckeye Pipe Line Lines	1.32
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Oct. 4, 1932)	.85
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931)	.60

PENNZOIL CO.
(Effective October 3, 1932)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$1.67
Group B (Includes Titusville district.)	1.60
Group C (Includes Turkey and Tidioute districts.)	1.55
Group D (Includes Bear Creek and Porkey districts.)	1.54
Group E (Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinsua districts.)	1.42

Price depends on length of pipe line haul to plant at Oil City.

TIDE WATER PIPE CO.
(Effective October 3, 1932)

Bradford, Pa.	$1.72
Allegany, N. Y.	1.73

PURE OIL CO.
(Effective October 3, 1932)

Cabin Creek, W. Va.	$1.37
Bradford Hollow, W. Va.	1.37
Kelly's Creek, W. Va.	1.37

Middle Western States

OHIO OIL CO.
(Effective December 16, 1932)

Lima (Jan. 10, 1933)	$ .90
Wooster	.95
Illinois	.87
Indiana	.83
Princeton	.87
Plymouth	Shut in
Western Kentucky	.83
Midland, Mich. (Dec. 31, 1932)*	.85
Muskegon (July 14, 1932)†	Mid-Continent gravity scale
Muskegon (June 30, 1932)‡	.95
Somerset, Ky. (Dec. 19, 1932)	.65
Hart County, Ky. (Dec. 21, 1932)§	.85

*Posted by Pure Oil Co. Old Dutch Refining Co. pays 20 cents per barrel over Pure Oil Co.'s posted price. †Naph-Sol Refining Co. ‡Old Dutch Refining Co. §Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

Mexico

Panuco*	$ .45

*F.o.b. ship, based on November transactions and exclusive of production and export taxes and bar dues.

Canada

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.56
Crude oil 45-45.9	2.12
Crude oil 50 and above	2.80
Crude naphtha	3.32
Discolored naphtha	3.08

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified.) (All gravities above those quoted take highest price offered in that field.)

Gravity—	Signal Hill (Long Beach)	Seal Beach, Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Domingues	Montebello	Wheeler Ridge	Coalinga	Whittier-La Habra
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$.65	....	$.55	$.55	....	$.65	$.55	$.55	$.65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	.65	....	.59	.59	....	.65	.57	.59	.68
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.72
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.62	.65	.77
23-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.83
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	$.73	.81	.81	$.89	.76	.69	.72	.89
25-25.9	.93	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	.97	....	.96	.97	....	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	.98	.94	1.02	.99	1.03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1.02	.98	1.07	1.02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1.05	1.02	1.12	1.05	1.09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1.10	....	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....	....	....

The Texas Company, effective June 26, posted same prices as the Standard Oil Co. in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello, North Whittier and Santa Fe Springs.

The Union Oil Co., effective June 26, posted the same price as the Standard Oil Co. in the Signal Hill, Alamitos Heights, Seal Beach, Huntington Beach, Athens, Rosecrans, Domingues, Torrance, Santa Fe Springs, Playa Del Rey, Coyote, Olinda, Brea Canyon, Richfield and Montebello. In Coalinga, Lost Hills, Kern River, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills the Union Oil Co. met the Standard Oil Co.'s prices from 14 gravity upward, but posted a price of 50 cents for oil 11 to 13.9 degrees in gravity.

General Petroleum adopted Standard Oil Co.'s prices, effective June 26, in Rosecrans, Signal Hill, Alamitos Heights, Santa Fe Springs, Inglewood, Torrance, Brea Canyon and Olinda, up to 35.9 degrees; Richfield, Midway-Sunset, Kern River, Mount Poso, Round Mountain and Coalinga and posted in Rincon as follows: 22-22.9 degrees, 68 cents; 23-23.9 degrees, 73 cents; 24-24.9 degrees, 78 cents; 25-25.9 degrees, 83 cents; 26-26.9 degrees, 86 cents; 27-27.9 degrees, 89 cents; 28-28.9 degrees, 92 cents; 29-29.9 degrees, 95 cents, 30 degrees and over, 98 cents. In Rosecrans, General Petroleum Co. pays 65 cents for 14 to 19.9 gravity oil; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 74 cents; 22-22.9 degrees, 79 cents; 23-23.9 degrees, 85 cents, and Standard's prices for oil of higher gravity.

Associated Oil Co., effective June 26, met Standard Oil Co.'s prices in Signal Hill, Huntington Beach, Seal Beach, Alamitos Heights, Richfield, Torrance, Inglewood, Athens, Rosecrans, Dominguez, Santa Fe Springs, McKittrick, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills, Lost Hills, Belridge and Coalinga.

Kettleman Hills—The Union Oil Co., effective June 26, posted 33-33.9 gravity oil at 91 cents; 34-34.9 degrees, 93 cents; 35-35.9 degrees, 95 cents; 36-36.9 degrees, 97 cents; 37-37.9 degrees, 99 cents; 38-38.9 degrees, $1.01; 39 degrees and over, $1.03. Standard Oil Co., Associated Oil Co. and General Petroleum Co. adopted same price schedule on same day.

Santa Paula—The Union Oil Co. and The Texas Company, effective June 26, posted as follows: 14 degrees to 19.9 degrees, 66 cents; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 72 cents; 22-22.9 degrees, 75 cents; 23-23.9 degrees, 78 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 84 cents; 26-26.9 degrees, 87 cents; 27-27.9 degrees, 90 cents; 28-28.9 degrees, 93 cents; 29 degrees and above, 99 cents.

Shields Canyon and South Mountain—The Texas Company, effective June 26, posted same prices as in Santa Paula.

Orcutt—The Union Oil Co., effective June 26, posted prices as follows: 16 degrees to 19.9 degrees, 55 cents; 20-20.9 degrees, 59 cents; 21-21.9 degrees, 63 cents; 22-22.9 degrees, 69 cents; 23-23.9 degrees, 75 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 87 cents; 26 degrees and above, 92 cents.

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Ventura Avenue—General Petroleum Co. and Associated Oil Co. effective June 26 posted as follows: 22-22.9 degrees, 72 cents; 23-23.9 degrees, 77 cents; 24-24.9 degrees, 82 cents; 25-25.9 degrees, 86 cents; 26-26.9 degrees, 90 cents; 27-27.9 degrees, 93 cents; 28-28.9 degrees, 96 cents; 29-29.9 degrees, 99 cents; 30 degrees and over, $1.02.

Petrero—Associated Oil Co., effective June 26, posted same prices as are paid by all companies in Athens, Rosecrans and Domingues.

Oil Issues in Abeyance in Oklahoma Legislature

Questions relating to control of oil in Oklahoma were held in abeyance during the first week of the fourteenth legislature, which began deliberations January 3, but are expected to form a considerable part of the assembly's activity before adjournment some time in April.

A resolution by Senator J. Woody Dixon, of Marietta, calls for an investigation of military control of proration in the Oklahoma City Field the last two years, and was on calendar for action this week.

Senator Knox Garvin, of Duncan, was appointed chairman of the senate oil and gas committee, and announced he was preparing a proration bill which has for its purpose clarifying certain clauses of the existing conservation statutes and includes an operative penalty clause for violation. He said his bill probably would be introduced as a committee measure within two weeks.

At least one other proration law, which is expected to carry the endorsement of Governor W. H. Murray, was in process of preparation, but had not been perfected Monday. Drafting of the penalty clause was understood to be the only thing lacking. Oil men have worked in close co-operation with Lieut. Col. Cicero I. Murray and the administration on this measure.

Former Governor J. C. Walton took his place as a member of the State Corporation Commission in succession to C. C. Childers Monday. Chairman Paul Walker will continue in that post for the present it was decided at a meeting of the reorganized commission.

Late Fields

NORTH MISSISSIPPI TEST

The Mississippi Oil & Gas Exploration Co. of Fort Worth, Tex., is preparing to spud the first of five tests in northwestern Mississippi. The first test is located in the SE NE, Section 16-20n-4w, Sunflower County, about 8 miles north of Indianola.

Five 5,000-acre blocks have been taken by the company in Sunflower, Bolivar and LeFlore Counties. Each test is to go to 3,500 feet.

Geology on the blocks was worked by J. Y. Snyder and Dr. A. F. Crider, of Shreveport, La., the geology being similar to that found in East Texas, and consists of five large subsurface structures part of which were checked by geophysical methods. Doctor Crider was formerly state geologist of Mississippi.

Leases in the five blocks are owned by the Mississippi Oil & Gas Exploration Co., Mr. Snyder, Doctor Crider and K. R. Marsh, the latter of Fort Worth.

LEASE FIELD IN KENTUCKY

PAINTSVILLE, Ky., Jan. 9.—An oil and gas lease has been recorded in the county clerk's office here covering some 200,000 acres of land owned by the Dayo-Hoare estates. The lease covers acreage in the five counties of Johnson, Floyd, Martin, Lawrence and Pike in the eastern Kentucky fields. The lease was recorded by Frederick F. Neuman, New York, attorney, representing eastern capital.

KANSAS

Sinclair Prairie Oil Co.'s No. 1 in the C NE NE Section 27-15-8w, Ellsworth County wildcat, found the Siliceous lime at 3,082-3,115 feet, with a showing of water. It may be abandoned.

Sinclair Prairie Oil Co.'s No. 1 Turgeon, C NE NW Section 3-16-12w, Barton County, wildcat, found the Siliceous lime at 3,401 feet, with water at 3,409-11 feet, and after drilling to 3,417 feet, where a showing of oil was found, it was shut down.

Ninnescah Oil & Gas Co.'s No. 1 Hardesty, SW cor. SE SE Section 28-27-11w, Pratt County wildcat, has resumed drilling operations after an underreaming job that required about four weeks. The well was drilling at 3,440 feet.

Slick, Pryor & Lockhart's No. 1 Breford, in Section 7-17-10w, a wildcat producer in Ellsworth County, is pumping around 550 bbls. a day. The well was recently put on production and the oil is being shipped out to the Sunflower Refinery Co.'s plant at Hutchinson.

On the Canton townsite, Keys Brothers' No. 1 Mun, SW cor. SE Section 21-19-1w, has recemented casing at 3,190 feet. The casing was cemented on a previous occasion but the water was not shut off. The well will be drilled to the Viola lime.

Vickers Petroleum Co.'s No. 1 Kerr, in Section 15-16-12w, a wildcat in the northeastern part of Barton County, is a rig complete.

Skelly Oil Co.'s No. 3 Leisman, NW cor. Section 29-27-10w, Kingman County, was making 145 bbls. of oil and 3,500,000 feet of gas a day from the Kansas City-Lansing lime at 3,370-3,489 feet. It is the fourth well completed on the company's block.

Gurley Brothers and others' No. 1 Union Pacific, NW cor. SW Section 7-14-7w, Ellsworth County wildcat, found the conglomerate at 3,302-3,406 feet with nothing showing and it was drilling deeper at 3,460 feet.

OKLAHOMA

The Shell Petroleum Corp. and others' No. 1 Jerome, C SW SW, Section 8-20-2w (Lucien Consolidated), in the Wentz Pool, Noble County, Oklahoma, found its first showing of oil at 5,116 feet in the Simpson dolomite. Another showing of oil was found at 5,161-65 feet. It found a sand at 5,170 feet and was drilling at 5,203 feet in sand with nothing showing at that depth. The discovery well in this area, L. H. Wentz and others' No. 1 Wolf, in Section 17-20-2w, found the big pay at 5,193 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Kolb, C NE NW, Section 33-20-2w, south of the discovery well in the Wentz Pool, has completed standardizing and is starting to bail the hole at a total depth of 4,935 feet in the Viola lime.

J. B. Nichols and others' No. 1 Rigney, SE cor. NW, Section 12-5-9w, in the Cement Field, Caddo County, was drilling at 3,875 feet. This will be a deep test. It has been shut down for about two years.

Ramsey Petroleum Co., Eason Oil Co. and others' No. 1 Gun Club, NW cor. NE, Section 10-16-4w, Logan County wildcat, is shut down at 6,504 feet in what is believed to be Sylvan shale.

Murrah and Bohannon's No. 1 Jacobs, NW cor. SE NE Section 16-7-8, in the West Holdenville Pool, Hughes County, flowed 107 bbls. in six hours from the Booch sand at 2,860-2,929 feet. The gas was estimated at 65,000,000 feet a day.

G. Manahan's No. 1 Chapman, NW cor. SE SW Section 10-7-8, Hughes County, landed the 8-inch casing at 2,910 feet and cored Booch sand to 2,910 feet, where a showing of oil was found.

Droppleman and others' No. 1 Warrior, SW cor. NE Section 17-9-7, in the East Seminole Pool, Seminole County, cored sand at 3,320 feet.

Hilton Phillips and others' No. 1 Bettis, SE cor. SW Section 31-7-4, south St. Louis extension area of Pottawatomie County, was drilling in the Kunson lime at 3,805 feet, with a showing of oil.

ATTACK TEXAS PRORATION

FORT WORTH, Tex., Jan. 10.—The first attempt to break the new proration regulation in East Texas was started here today when F. W. Fischer, representing the O'Connell Corp., J. E. Carroll, J. G. Blaine, R. W. Porter, and the Producers Investment Corp. filed suit in Federal Court seeking an injunction restraining the Texas Railroad Commission and state officials from enforcing the proration law.

EDWARD H. KELLOGG DEAD

Edward H. Kellogg, of Pittsburgh, Pa., sales manager of the Mine Safety Appliance Co., for the past seven years, died suddenly on Monday evening, January 9, of cerebral hemorrhage. Mrs. Kellogg and one child survive. Deceased was well and favorably known in the Mid-Continent oil fields, as well as among mining men.

Texas Association Holds First Annual Meeting

(Continued from Page 9)

too heavy to bear. Surely somewhere along this lane of constantly mounting taxes, there must be a turning. It is fervently hoped that the truth of this is now being sensed by those who make our laws.

"Gasoline tax evasion was practically unheard of until the tax rate in the various states was raised above 2 cents. Adequate laws, strong enforcement and united effort on the part of the oil industry in combating tax evasion will afford great relief from existing conditions, but tax evasion, as an institution, is only going to pass when the tax ratio is put to the point where the spoils of the racket are not worth the risk.

"Gasoline tax evasion is not a localized ailment. Do not think for an instant that it is only a marketer's grief. True, the contact and the commission of the act are there, but the end is further on. It is a noxious thing that gets into the blood-stream of the industry and its effect is deadening. It goes just as surely to the source of marketing, which is production, as poison in the blood-stream of the body goes to the heart.

"With a margin of 5 cents to operate on, the tax evader, his outlets and connections, can, and do draw a tremendous volume of business from the legitimate marketer. His operations are not local or peculiar to any community. His field is everywhere gasoline is sold. There is hardly a filling station in Texas today that has not bootleg competition. The honest marketer cannot afford to let all of his business go. He must do something about it. He cuts his price to the consumer in order to hold his business, and, against the bootlegger's 5 cents to lag with, he has to do considerable cutting. His entire operation is soon showing a loss, and this loss continues until something is done to adjust the situation. How is the situation adjusted? By cheapening the cost of gasoline, which means reducing the price of crude. True, indeed, other factors enter into the price of crude, but, remember, gasoline tax evasion plays its part in every reduction of the price. It cannot be otherwise, because it is part of the operation of natural economic law. Once gasoline tax evasion is removed from the marketing end of the industry, a mighty stimulus is going to be given to price stabilization."

Newspaperman's Views

Lowry Martin, president of the Texas Press Association, spoke on the importance of the petroleum industry to the State of Texas, to all residents of that State and to newspapers. He pointed out that the millions of dollars collected annually by Texas from the oil industry was of such importance to every citizen that "it occurs to me that the public might be educated to the fact that oil is just as important or more important to Texas than cotton and that, as a consequence, the public should be just as delighted to see oil men get a reasonable price for the products as they are when they see 12-cent cotton."

John Kilgore, attorney of Wichita Falls, briefly discussed the newly made conservation laws.

Barney Flynn, independent operator, offered a resolution thanking Judge Ames for his informative paper.

Tom Pollard, attorney of Tyler, invited all members of the association to attend the final proration hearing at Tyler on January 12.

Election of Officers

Charles F. Roeser was re-elected president of the association. J. D. Collett and E. A. Landreth, both of Fort Worth, were re-elected first vice president and treasurer, respectively. Practically all vice presidents and directors were affirmed for the ensuing year, with the inclusion of the following new directors: R. H. Lynn, Phillips Petroleum Co., Amarillo; O. O. Franklin, Waggoner Refining Co., Vernon; Jack B. Robert, Robert Oil Corp., Breckenridge; E. S. Henser, Heyser and Heard, Dallas; James R. Gahan, Tide Water Oil Co., Houston; J. A. Elkins, attorney, Houston; A. H. Weyland, Arkansas Fuel Oil Co., Shreveport, La.; B. C. Clardy, Shell Petroleum Corp., Houston; Charles I. Francis, attorney, Wichita Falls; W. H. McFadden, Southland Royalty Co., Ponca City, Okla.; Arthur D. Robinson, Dallas; Charles Pettit, Dallas; J. G. Puterbaugh, Longview; C. W. Tomlinson, Schermerhorn Oil Co., Ardmore, Okla.; W. L. Knight, Breckenridge; A. A. Seligson, Oklahoma City.

New Car Registrations for Month of November

WASHINGTON, D. C., Jan. 7.—New car registrations by states for the month of November, 1932, follow:

State—	Passenger cars	Commercial cars
Alabama	676	269
Arizona	164	34
Arkansas	393	97
California	4,028	607
Colorado	330	91
Connecticut	837	224
Delaware	118	29
District of Columbia	534	98
Florida	755	190
Georgia	685	132
Idaho	110	14
Illinois	1,804	272
Indiana	854	180
Iowa	653	148
Kansas	779	249
Kentucky	606	164
Louisiana	609	137
Maine	234	103
Maryland	636	157
Massachusetts	1,260	537
Michigan	1,550	249
Minnesota	637	239
Mississippi	231	127
Missouri	1,403	385
Montana	84	33
Nebraska	330	103
Nevada	26	7
New Hampshire	201	74
New Jersey	1,673	427
New Mexico	159	80
New York	5,349	1,125
North Carolina	912	188
North Dakota	114	31
Ohio	2,276	445
Oklahoma	1,014	206
Oregon	331	62
Pennsylvania	3,724	1,055
Rhode Island	268	76
South Carolina	386	64
South Dakota	146	45
Tennessee	541	115
Texas	2,666	661
Utah	120	43
Vermont	155	45
Virginia	1,096	337
Washington	415	74
West Virginia	367	112
Wisconsin	989	195
Wyoming	671	17
Total	44,358	10,392

NEW BOOK ON OIL CRACKING

A book containing a wealth of information about the cracking of petroleum oils has been issued by the Chemical Catalog Co., under the title, "Chemistry and Technology of Cracking," by Sachanen and Tilicheyev, translated from the Russian by Boehtlingk, Brown and Steik.

The foundation material is based on a series of experiments, by the authors, at the Petroleum Research Institute of the Grosneft, Grozny. Several forms of experimental pressure stills are described in the first chapter. This chapter gives the temperature, pressure, and velocity data together with numerous analyses and yields. The book is divided into nine chapters. The several recognized cracking processes are described and illustrated. The numerous tables give the details covering the cracking experiments and the runs made with numerous stocks. Chemists and technologists interested in cracking will find the 389 pages a source of valuable information. The price is $8.

W. B. JENNINGS DIES

BRUNSWICK, Ga., Jan. 9.—W. B. Jennings of New York, president of the Jekyll Island Club, died at his home on the island early today. He had been a member of the millionaire club for years and its president for five years. Mr. Jennings, who was 74 years old, had been a director of the Standard Oil Co. of New Jersey since 1903 and served as secretary of the company from 1908 to 1911.

Mid-Continent Refiners Do Not Adopt Higher Schedules

(Continued from Page 8)

REFINERY OPERATIONS IN NORTH CENTRAL TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Allstate Refining Co., Thrall	3,000	400	400
American Refining Properties, Wichita Falls	6,000	(*)	(*)
Archer Refining Co., Megargel	1,500	400	400
Atlantic, Pacific and Gulf Refining Co., Wichita Falls	5,000	(*)	100
Bobrose Oil & Refineries, Brownwood	2,000	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	4,000	4,000
Dale Oil & Refining Co., Electra	4,000	(*)	(*)
Dixon Creek Oil & Refining Co., Kings Mill	3,500	800	750
Empire Oil & Refining Co., Gainesville	5,000	2,300	2,300
Exchange Petroleum Corp., Albany	500	350	300
Falls Refining Co., Wichita Falls	2,000	700	780
Gratex Refining Co., Graham	500	125	120
Gulf Refining Co., Fort Worth	10,000	6,000	6,000
Humble Oil & Refining Co., Breckenridge	2,000	(*)	(*)
Humble Oil & Refining Co., Chilton	4,000	(*)	(*)
Humble Oil & Refining Co., Neches	5,000	1,450	1,850
Iowa Park Producing & Refining Co., Iowa Park	2,500	(*)	(*)
Kent Refining Co., Minerva	2,000	285	325
Kent Refining Co., Angus	4,000	125	(*)
La Salle Petroleum Co., Burkburnett	3,500	110	225
Macmillan Petroleum Co., Isom	8,000	(*)	(*)
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	5,600	4,800
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	(*)	(*)
Magnolia Petroleum Co., Corsicana	5,000	3,280	4,380
Marathon Oil Co., Fort Worth	5,000	4,200	4,200
Moon Refining Co., Graham	300	60	55
Muenster Refining Co., Muenster	300	(*)	(*)
Olney Oil & Refining Co., Olney	2,500	2,000	1,650
Oriental Oil Co., Dallas	5,000	1,000	1,100
Panhandle Refining Co., Wichita Falls	5,000	2,000	2,000
Petroleum Refractionating Co., Pampa	6,500	5,400	5,200
Phillips Petroleum Co., Isom	18,000	17,500	17,500
Phoenix Refining Co., Inc., Dallas	3,000	500	500
Pilot Point Refining Co., Pilot Point	500	200	200
Primrose Refining Co., Wichita Falls	2,500	(*)	(*)
Shamrock Oil Co., Sunray	4,000	350	350
Sinclair Refining Co., Fort Worth	5,000	3,000	3,000
Simms Oil Co., West Dallas	4,500	2,000	3,000
Southland Refining Co., Olney	1,000	80	100
Star Refining & Producing Co., Fort Worth	1,500	600	750
Superior Refining Co., Tiffin	500	100	(*)
Taylor Refining Co., Taylor	6,000	800	800
Taxman Refining Co., Wichita Falls	3,000	(*)	3,000
The Texas Company, Dallas	16,000	11,000	11,000
The Texas Company, Amarillo	4,000	1,800	2,000
Texas Pacific Coal & Oil Co., Fort Worth	5,000	3,000	4,500
Texas Pacific Coal & Oil Co., Caddo	1,000	450	500
Waggoner Refining Co., Electra	6,000	2,500	2,500
Wilcox Oil & Gas Co. (Pampa Refining Co.), Pampa	4,000	(*)	(*)
Total	215,400	84,665	88,335

*Shut down.

REFINERY OPERATIONS IN KANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Altitude Petroleum Corp., Chanute	5,000	(†)	(†)
Altitude Petroleum Corp., Kansas City, Mo.	3,000	1,000	1,500
Barnsdall Refineries, Inc., Wichita	4,000	1,100	(*)
Derby Oil Co., Wichita	7,500	4,000	4,000
Dickey Refining Co., McPherson	5,000	1,000	(*)
Eldorado Refining Co., Eldorado	4,500	2,500	2,700
Golden Rule Refining Co., Wichita	1,500	900	900
Kanotex Refining Co., Arkansas City	12,000	3,500	4,000
National Refining Co., Coffeyville	6,500	5,000	5,000
Phillips Petroleum Co., Kansas City	7,500	7,500	7,500
Shell Petroleum Corp., Arkansas City	22,000	8,000	10,000
Sinclair Refining Co., Coffeyville	12,000	10,000	10,000
Sinclair Refining Co., Argentine	9,500	(*)	(*)
Skelly Oil Co., Eldorado	23,000	10,000	11,000
Standard Oil Co. of Kansas, Neodesha	20,000	(*)	6,000
Vickers Petroleum Co., Potwin	3,500	2,000	2,000
White Eagle Oil Corp., Augusta	15,000	12,500	13,000
Total	161,500	75,000	77,600

*Shut down. †Operating cracking stills.

REFINERY OPERATIONS IN NORTH LOUISIANA
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Bayou State Refining Co., Hosston	750	500	200
Cedar Grove Refining Co., Shreveport	750	750	750
Louisiana Oil Refining Co., Shreveport, Bossier	19,000	18,500	16,000
Spartan Refining Co., Shreveport	10,000	5,000	6,000
Stanolind Oil & Gas Co., Superior	3,500	2,000	2,000
The Texas Company, Shreveport	7,000	(*)	(*)
Total	41,000	26,750	24,950

*Shut down.

REFINERY OPERATIONS IN EAST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Alamo Refining Co., Camps Switch	2,500	(*)	(*)
Arp Refining Co., Arp	500	500	860
Arrow Refining Co., Overton	2,500	1,500	1,200
Beacon Oil & Refining Co., Henderson	2,500	1,500	2,300
Canyon Refining Co., Kilgore	200	(*)	(*)
Central Refining Co., Friars Switch	7,500	(*)	(*)
Constantin Refining Co., Overton	3,000	400	400
Cook (R. X.), Gladewater	200	125	(*)
East Texas Refining Co., Henderson	6,000	(*)	(*)
East Texas Refining Co., Longview	10,000	3,000	8,000
Gladetex Refining Co., Gladewater	500	(*)	300
Gladewater Refining Co., Gladewater	500	(*)	(*)
Gregg Refining Co., Gladewater	300	110	(*)
Johnsonville Refining Co., Omega	200	(*)	40
Kilgore Refining Co., Kilgore	1,500	1,900	1,500
Lake Refining Co., Gladewater	500	250	200
Locke Refining Co., Gladewater	200	120	(*)
Overton Refining Co., Overton	3,500	1,800	1,900
Pennant Refining Co., Kilgore	250	150	100
Petroleum Refractionating Co., Longview	10,000	(*)	(*)
Roland Refining Co., Arp	200	building	building
Rusk Refining Co., Overton	3,000	1,000	900
Sabine Refinery Co., Gladewater	200	170	120
Shoreline Refining Co., Kilgore	300	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	1,200	1,500
Southern Oil Refining Co., Reeds Switch	2,500	800	1,000
Taylor Refining Co., Tyler	15,000	8,800	9,200
Trinity Refining Co., Gladewater	350	200	(*)
Unit Refining Co., Kilgore	200	100	75
V.E.O. Refining Co., Gladewater	500	650	600
V.E.O. Refining Co., Big Sandy	2,000	(*)	(*)
Panama, Kilgore	250	250	100
Total	54,550	24,520	30,745

*Shut down.

REFINERY OPERATIONS IN ARKANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Berry Asphalt Co., Waterloo	2,000	(*)	(*)
Henry H. Cross Co., Smackover	6,000	4,000	4,000
Houston Oil Co., Camden	6,000	(*)	(*)
Kettle Creek Refining Co., Pearson	5,000	1,500	1,500
Lion Oil & Refining Co., El Dorado	12,000	6,000	5,500
Macmillan Petroleum Products Co., Norphlet	2,000	1,500	1,800
Ouachita Valley Refining Co., El Dorado	2,000	1,100	1,000
Root Refining Co., El Dorado	10,000	4,200	2,500
Simms Oil Co., Smackover	3,000	2,000	2,500
Union Asphalt Co., El Dorado†			
Total	48,000	20,300	18,800

*Shut down. †Reduces residuum purchased from Lion Oil & Refining Co., no crude run.

REFINERY OPERATIONS IN WEST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Average daily runs— January	December
Bluebonnett Oil Refining Co., Wickett	5,000	100	100
Bobrose Oil & Refineries, Luling	2,500	1,000	1,200
Burford Oil Co., Pecos City	6,000	3,000	3,000
Coltex Refining Co., Colorado	10,000	4,500	5,800
Concho Refining Co., San Angelo	500	50	75
Cosden Oil Co., Big Spring	15,000	3,600	4,500
Pentex Refining Co., Echo	400	60	100
Grayburg Oil Co., San Antonio	6,000	450	600
Great West Refining Co., Big Spring	8,500	(*)	(*)
Gulf Refining Co., Sweetwater	5,000	3,000	3,000
Howard County Refining Co.	2,500	(*)	(*)
Humble Oil & Refining Co., San Antonio	5,000	1,300	1,300
Humble Oil & Refining Co., McCamey	15,000	(*)	(*)
Magnolia Petroleum Co., Luling	7,000	4,500	4,620
Marathon Oil Co., Del Rio	5,000	1,500	1,500
Mentone Oil & Refining Co., Mentone	300	100	100
Moutray Refining Co., Hawley	500	200	200
Misko Refineries, Inc., Laredo	1,500	800	800
Octane Refining Co., Beard	2,000	1,200	1,300
Paramount Refining Co., San Angelo	2,000	800	100
Pasotex Petroleum Co., El Paso	14,000	8,000	5,000
Phoenix Refining Co., Pettus	800	600	600
Pioneer Oil & Refining Co., Somerset	1,500	800	850
Richardson Refining Co., Big Spring	6,000	(*)	(*)
Rio Grande Oil Co., El Paso	6,000	500	700
Signal Gasoline Co., Texon	500	(*)	(*)
The Texas Company, San Antonio	3,000	1,000	1,000
The Texas Company, El Paso	2,000	800	800
Tonkawa Petroleum Co., Pyote	5,000	(*)	(*)
Texas Mexican Oil & Refining Co., Laredo	600	400	400
Texas Petroleum Products Co., Somerset	1,500	400	400
Wickett Refining Co., Wickett	2,500	800	400
White Star Refining Co., Cisco	500	160	200
Total	144,100	39,620	38,145

*Shut down.

Market Expanding for Oil Burner Distillates

(Continued from Page 28)

cated upon a thorough knowledge of why people buy burners. We believe the chief factors why oil burners are sold may be classified in one of the following: Convenience, cleanliness, uniform heat, keep up with the times, economy, influence of advertisements and recommendation of friends.

An important recent factor in fuel oil marketing is the coal dealer. Many requests are received daily for information regarding the grades of fuel oil required by the domestic trade and for advice on the proper storage and other facilities necessary in order that one may purchase and distribute fuel oil for home consumption. This clearly indicates an opportunity for the industry to secure additional distribution outlets for domestic, commercial and industrial grades of fuel oil.

It has been estimated that roughly 40,750,000 bbls. of fuel oil were consumed by domestic and commercial installations alone in 1931. Oil burner dealers influenced the purchase of most of the oil because most customers look to the dealer for instructions as to the proper grade of oil to buy and which company to purchase from.

Let us stop for a minute and see how the industry is equipped to satisfy the potential demand for its fuel oil. To do so we must start with the subject of gasoline. From 1920 to 1930 the consumption of this product in the United States nearly quadrupled itself. The use of other important petroleum products, however, grew less rapidly. Increase in automobiles and in consumption of motor fuel stimulated road building, and so we find the sales of asphalt increasing 2.5 times in the 1920-1930 period. Lubricating oil consumption increased by almost one-half, but kerosene dropped off to the point where it is less now than it was in 1920. Fuel consumption doubled but only under the stimulus of ruinously low prices which fell to the point where the average was less than that of coal.

Through improvements in refining practice the yield of gasoline from crude was increased from 26.1 per cent in 1920 to 42 per cent in 1930. Today it is even higher. In order to take advantage of these advances in refining technique the industry diverted its higher grades of distillate fuel oils to cracking coils to be made into gasoline. Now, if the same quantity of motor fuel had been produced by the most efficient cracking process, the refiner would have needed a much smaller amount of distillate fuel oil, leaving an additional supply of distillate available for domestic heating.

The answer to the problem of supply, therefore, lies in the present trend of refining. As the most modern types of cracking units come into more general use throughout the industry, and when hydrogenation is adopted on a wider scale, less distillate fuel oil will be required for cracking, leaving a greater supply available for the growing market for domestic oil burners.

International Petroleum Colombia-Peru Output

CHATHAM, Ontario, Jan. 7.—International Petroleum Co.'s crude output from its South American fields in November showed a further decline in comparison with October figures. The daily average from Colombia in November was 24,500 bbls. as against 28,128 bbls. in October. In Peru the daily average showed a slight increase, being 18,965 bbls. in November compared with 18,079 bbls. in October.

The total production from the company's wells in Colombia during October was 871,912 bbls., compared with 1,455,380 bbls. in October, 1931. For the period ending October 31, 1932, there were in the Colombian fields 18 completions averaging 328 bbls. initial production, while deliveries for that period aggregated 14,746,976 bbls. This compared with 39 new wells with average initial production of 382 bbls. and total deliveries of 15,253,447 bbls. from the field in the 1931 period.

In Peru the total production during October was 560,436 bbls. as against 555,527 bbls. in October, 1931. For the 10 months of 1932 there were three new completions with average initial production of 49 bbls., while aggregate deliveries amounted to 6,313,660 bbls. for that period. This compared with 40 new completions, averaging 261 bbls. in the 1931 period, when total deliveries aggregated 6,286,122 bbls.

Bureau of Mines Statistics for the Month of November, 1932

SUPPLY AND DEMAND OF ALL OILS
(Including wax, coke, and asphalt in thousands of barrels of 42 U. S. gallons)

NEW SUPPLY:	Nov., 1932	Oct., 1932	Nov., 1931	Jan.-Nov., 1932	Jan.-Nov., 1931
Domestic production:					
Crude petroleum	63,384	65,219	73,456	723,801	777,754
Daily average	2,113	2,104	2,449	2,161	2,329
Natural gasoline	2,855	2,924	3,450	32,884	40,100
Benzol*	94	91	128	1,048	1,700
Total production	66,333	68,234	77,034	757,733	819,554
Daily average	2,211	2,201	2,568	2,262	2,454
Imports:					
Crude petroleum	1,962	2,455	2,604	41,942	42,935
Refined products	1,210	1,394	2,579	28,593	35,934
Total new supply, all oils	69,506	72,083	82,217	828,268	898,423
Daily average	2,317	2,325	2,774	2,472	2,690
Decrease in stocks, all oils	9,385	5,735	†2,179	32,555	48,363
DEMAND:					
Total demand	78,891	77,818	80,038	861,823	946,786
Daily average	2,630	2,510	2,668	2,572	2,835
Exports:					
Crude petroleum	1,318	2,541	2,449	25,239	24,464
Refined products	5,696	5,494	8,067	71,074	92,758
Domestic demand	71,877	69,783	69,522	765,510	829,564
Daily average	2,396	2,251	2,317	2,285	2,484
Excess of daily average domestic production over domestic demand	‡185	‡50	251	‡32	‡20
STOCKS (end of month):‖					
Crude petroleum:					
East of California	307,311	311,659	326,808	307,311	326,808
California‖	40,264	39,996	41,777	40,264	41,777
Total refinable crude	347,575	351,655	368,585	347,575	368,585
Natural gasoline	3,049	3,457	2,536	3,049	2,536
Refined products‖	247,398	252,295	247,128	247,398	247,128
GRAND TOTAL STOCKS ALL OILS	598,022	607,407	618,299	598,022	618,299
Days' supply	227	242	232	232	218
Bunker oil (included above in domestic demand)	2,763	2,916	3,060	35,461	40,267

*Based upon production of coke reported to Coal Division by those by-product coke plants that recover benzol products. †Increase. ‡Deficiency. §Stock figures for 1931 not entirely comparable with those for 1932 as the 1932 figures include bulk terminal stocks of gasoline and other revisions not carried back into 1931. ‖California heavy crude and residual fuel included under refined products.

COMPARATIVE ANALYSES
(Thousands of barrels of 42 U. S. gallons)

CRUDE PETROLEUM:	Nov., 1932 Total	Nov., 1932 Daily av.	Oct., 1932 Total	Oct., 1932 Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931
Runs to stills:						
Domestic	62,783	2,092	63,367	2,044	714,439	778,297
Foreign	2,721	91	3,331	108	39,560	42,590
Total	65,504	2,183	66,698	2,152	753,999	821,887
Imports	1,962	65	2,455	79	41,942	42,935
Exports	1,318	44	2,541	82	25,239	24,464
MOTOR FUEL:						
Production	32,672	1,089	33,580	1,083	365,752	401,691
Imports	121	4	161	5	8,153	12,828
Exports*	2,387	80	2,379	77	33,481	42,025
Stocks†	47,152	.....	47,940	.....	47,152	38,696
Domestic demand	30,294	1,010	32,255	1,040	344,593	372,896
KEROSENE:						
Production	3,801	127	3,463	112	39,739	38,732
Imports	.....	.....	61	2	72	11
Exports	973	32	962	31	10,310	12,071
Stocks	4,324	.....	5,465	.....	4,324	5,618
Domestic demand	3,969	132	3,115	100	30,509	27,928
GAS OIL AND FUEL OIL:						
Production	23,650	788	23,495	758	269,805	310,030
Transfers‡	535	18	522	17	5,777	(§)
Imports	1,073	36	1,162	37	20,141	32,914
Exports	1,472	49	1,475	48	16,542	27,282
Stocks	133,971	.....	137,446	.....	133,971	139,107
Domestic demand	27,560	919	24,748	798	278,603	(§)
LUBRICANTS:						
Production	1,644	55	1,712	55	20,808	24,655
Imports	.....	.....	.....	.....	11	29
Exports	573	19	463	15	6,404	7,531
Stocks	8,245	.....	8,289	.....	8,245	9,422
Domestic demand	1,115	37	1,143	37	15,656	18,702
WAX (thous. of pounds):						
Production	33,320	1,111	31,360	1,012	423,920	432,040
Imports	2,201	73	530	17	29,035	31,407
Exports	25,525	851	28,556	921	213,723	251,360
Stocks	180,441	.....	188,637	.....	180,441	183,938
Domestic demand	13,192	606	15,278	493	230,061	260,241
COKE (short tons):						
Production	146,700	4,890	154,500	4,984	1,639,200	1,864,300
Stocks	1,410,600	.....	1,434,000	.....	1,410,600	1,499,000
ASPHALT (short tons):						
Production	176,700	5,890	229,200	7,397	2,268,100	2,844,900
Imports (natural)	1,400	47	1,000	32	19,800	.....
Stocks	279,500	.....	248,300	.....	279,500	276,800
ROAD OIL:						
Production	190	63	470	15	8,750	5,092
Stocks	499	.....	559	.....	499	378
STILL GAS:						
Production	3,311	110	3,484	112	37,591	35,209
MISCELLANEOUS:						
Production	196	7	200	6	3,967	3,903
Stocks	485	.....	459	.....	485	714

*Includes benzol—4,375 bbls. in November, 1932. †Stocks of motor fuel in 1932 include terminal and transit stocks. ‡Includes crude used as fuel and net transfers to fuel oil stocks in California. §Not available.

INDICATED DOMESTIC DEMAND FOR CRUDE PETROLEUM
(Thousands of barrels of 42 U. S. gallons)

Domestic petroleum by fields of origin:	Nov., 1932 Total	Nov., 1932 Daily av.	Oct., 1932 Total	Oct., 1932 Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931*
Appalachian:						
Pennsylvania Grade	1,684	56	1,710	55	19,382	21,330
Other (incl. Kentucky)	610	20	742	24	7,054	7,756
Lima-N.E. Ind.-Mich.	685	23	986	32	7,643	4,302
Ill.-S.W. Ind.	440	15	331	11	3,855	5,729
Mid-Continent:						
N. La. and Ark.	2,394	80	1,945	62	24,289	29,841
W. Texas-S.E. N. Mex.	6,490	216	5,400	174	71,885	96,943
Other (Okla., Kans., N. Tex., etc.)	23,710	1,123	33,967	1,095	285,129	299,743
Gulf Coast	5,540	185	5,259	170	49,458	59,971
Rocky Mountain	1,165	39	1,278	41	13,921	20,276
California	13,133	438	14,561	470	160,544	6
Total demand	65,854	2,195	66,180	2,135	742,970	645,901
Exports	1,318	44	2,541	82	25,239	17,083
Domestic demand	64,536	2,151	63,649	2,053	718,731	628,813
Foreign petroleum	2,832	95	3,132	101	40,278	43,195
Total domestic demand	67,368	2,246	66,780	2,154	759,009	672,008

*East of California.

PRODUCTION OF CRUDE PETROLEUM
(Thousands of barrels of 42 U. S. gallons)

	Nov., 1932 Total	Nov., 1932 Daily av.	Oct., 1932 Total	Oct., 1932 Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931
Arkansas	960	32	1,016	32	10,985	13,836
California:						
Kettleman Hills	1,846	61	1,829	59	20,116	15,693
Long Beach	2,109	70	2,167	69	25,257	27,802
Santa Fe Springs	1,704	57	1,974	64	20,807	22,583
Rest of State	8,483	283	8,718	281	97,363	107,471
Total California	14,142	471	14,628	472	163,533	173,269
Colorado	89	3	89	3	1,093	1,419
Illinois	276	10	291	9	4,372	4,592
Indiana:						
Southwestern	50	2	49	2	727	735
Northeastern	1	.....	2	.....	26	35
Total Indiana	51	2	51	2	753	770
Kansas	2,870	96	2,909	94	31,658	33,835
Kentucky	490	16	515	17	5,811	5,942
Louisiana:						
Gulf Coast	1,031	34	1,016	33	10,333	8,642
Rest of State	859	29	862	28	9,283	11,414
Total Louisiana	1,890	63	1,878	61	19,616	20,056
Michigan	594	20	744	24	6,214	3,312
Montana	159	5	159	5	2,277	2,622
New Mexico	956	32	969	31	11,655	13,920
New York	258	9	365	9	3,239	3,025
Ohio:						
Central and Eastern	276	9	284	9	3,253	3,868
Northwestern	72	2	85	3	986	1,026
Total Ohio	348	11	369	12	4,239	4,894
Oklahoma:						
Oklahoma City	2,190	73	2,121	69	30,697	41,157
Seminole	3,243	108	3,378	109	39,677	43,478
Rest of State	6,226	208	6,515	210	70,432	78,940
Total Oklahoma	11,659	389	12,014	388	140,806	163,575
Pennsylvania	962	32	977	31	11,422	10,762
Tennessee	.....	.....	.....	.....	5	6
Texas:						
Gulf Coast	3,831	128	3,746	121	37,957	44,509
West Texas	4,976	166	5,072	163	58,494	98,409
East Texas	10,817	360	11,131	359	114,852	72,700
Rest of State	6,727	224	7,011	226	78,840	88,534
Total Texas	26,350	878	26,959	869	290,143	304,152
West Virginia	287	10	323	10	3,586	4,090
Wyoming:						
Salt Creek	636	21	646	21	7,403	8,148
Rest of State	393	13	398	13	4,991	5,521
Total Wyoming	1,029	34	1,044	34	12,394	13,669
Total U. S.	63,384	2,113	65,219	2,104	723,801	777,754

PRODUCTION OF CRUDE PETROLEUM BY FIELDS
(Thousands of barrels of 42 U. S. gallons)

FIELD:	Nov., 1932 Total	Nov., 1932 Daily av.	Oct., 1932 Total	Oct., 1932 Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931
Appalachian:						
Pennsylvania Grade	1,643	55	1,702	55	19,842	19,867
Other (incl. Kentucky)	630	21	661	21	7,474	7,827
Lima-N.E. Ind.-Mich.	667	22	831	27	7,226	4,373
Ill.-S.W. Ind.	346	12	346	11	5,099	5,327
Mid-Continent:						
N. La. and Ark.	*1,819	61	1,877	60	20,268	25,250
W. Texas-S.E. N. Mex.	5,890	196	5,992	193	69,769	86,135
Other (Okla., Kans., N. Tex., etc.)	32,073	1,069	33,065	1,067	366,156	384,353
Gulf Coast	4,862	162	4,761	154	48,290	53,151
Rocky Mountain	1,313	44	1,361	44	16,144	18,202
California	14,142	471	14,628	472	163,533	173,269
Total	63,384	2,113	65,219	2,104	723,801	777,754

STOCKS OF CRUDE PETROLEUM
(Thousands of barrels of 42 U. S. gallons)

EAST OF CALIFORNIA:	Nov. 30, 1932	Oct. 31, 1932	Nov. 30, 1931
At refineries by location:			
East Coast: Domestic	8,112	9,049	8,560
Foreign	4,906	5,788	2,666
Appalachian	2,250	2,250	1,942
Indiana, Illinois, Kentucky, Michigan	3,734	3,823	3,145
Oklahoma, Kansas and Missouri	4,572	4,460	5,155
Texas: Inland	1,421	1,271	1,776
Gulf Coast: Domestic	6,096	6,163	7,112
Foreign	136	81	340
Louisiana Gulf Coast: Domestic	2,712	2,832	2,878
Foreign	1,116	1,158	587
Arkansas and inland Louisiana	561	661	554
Rocky Mountain	*11,981	1,783	1,851
Total	47,598	39,329	36,566
At refineries by origin:			
Pennsylvania Grade	2,136	2,182	1,817
Other Appalachian (incl. Kentucky)	654	613	706
Lima-N.E. Indiana-Michigan	242	241	233
Illinois-S.W. Indiana	65	63	98
N. Louisiana and Arkansas	2,073	1,923	1,882
West Texas and S.E. New Mexico	4,107	4,241	3,516
Oklahoma, Kansas, N. Texas, etc.	15,546	16,266	17,617
Gulf Coast	4,884	5,029	5,426
Rocky Mountain	*11,933	1,733	1,678
Foreign	6,158	7,027	3,593
Total	47,598	39,329	36,566
Pipe line and tank farm:			
Pennsylvania Grade	4,920	4,924	4,633
Other Appalachian (incl. Kentucky)	844	865	1,061
Lima-N.E. Indiana-Michigan	1,159	1,179	1,387
Illinois-S.W. Indiana	11,094	11,188	9,834
N. Louisiana and Arkansas	12,630	12,351	18,008
W. Texas and S.E. New Mexico	32,439	32,915	36,417
Oklahoma, Kansas, N. Texas, etc.	162,768	163,696	176,576
Gulf Coast	12,453	12,784	13,170
Rocky Mountain	*15,446	25,478	23,135
Total	253,763	266,380	284,221
Total refinery, pipe line and tank farm	301,361	305,709	320,787
Producers'	5,950	5,950	6,021
Total crude east of California	307,311	311,659	326,808
CALIFORNIA: Light	40,264	39,996	41,777
Total refinable crude in the U. S.	347,575	351,655	368,585

*10,211,000 bbls. transferred from tank farm to refinery storage.

(Continued on Next Page)

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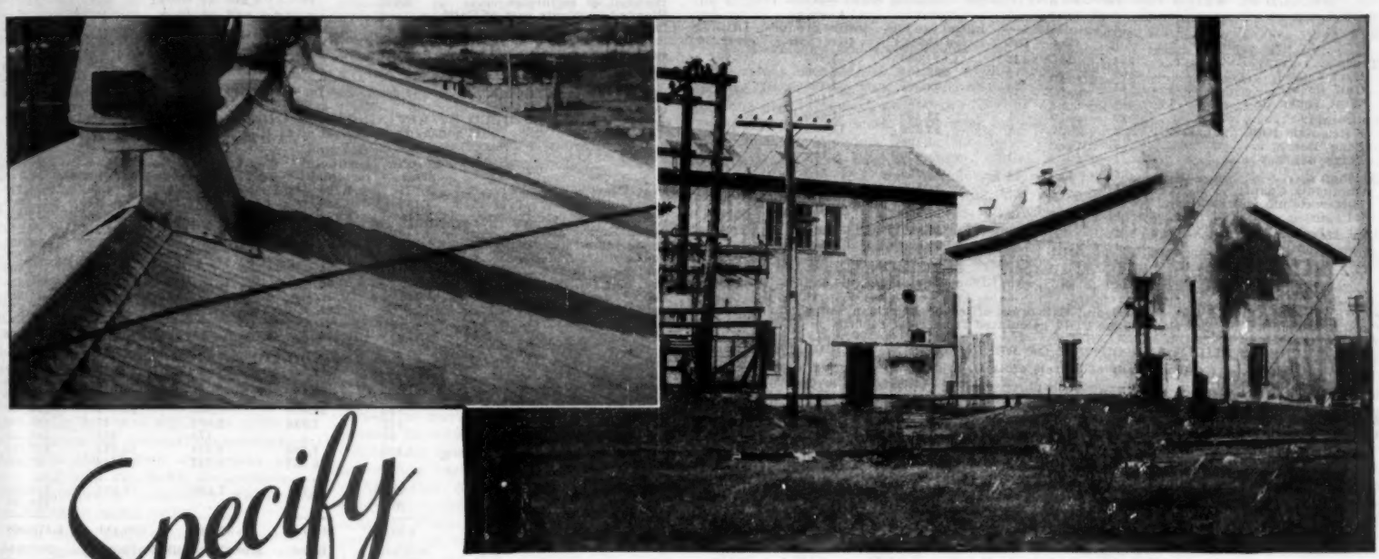

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SHIPMENTS FROM CALIFORNIA TO EASTERN PORTS IN UNITED STATES*
(Thousands of barrels of 42 U. S. gallons)

	Nov., 1932	Oct., 1932	Nov., 1931	Jan.-Nov., 1932	Jan.-Nov., 1931
Gasoline	480	628	1,106	7,951	12,592
Natural gasoline	153	.....	281	442	1,676
Kerosene	105	75	.....	466	194
Gas oil and Diesel oil	532	155	94	1,643	1,612
Fuel oil	170	86	.....	377	2
Lubricants	.....	9	5	37	74
Asphalt	.....	.....	1	6	14
Miscellaneous	79	26	.....	163	.....
Total	1,519	979	1,487	10,985	16,164

*Compiled by E. T. Knudsen of the San Francisco office of the Bureau of Mines.

NUMBER OF WELLS COMPLETED IN THE UNITED STATES*

	Nov., 1932	Oct., 1932	Nov., 1931	Jan.-Nov., 1932	Jan.-Nov., 1931
Oil	844	825	874	9,648	6,044
Gas	90	97	161	937	1,856
Dry	280	353	252	2,226	3,419
Total	1,214	1,275	1,288	13,811	11,319

*From The Oil and Gas Journal and California office of American Petroleum Institute.

RECORD OF WELLS FOR IMPORTANT FLUSH FIELDS, NOVEMBER, 1932*

	Completions: Oil	Gas	Dry	Total initial production (bbls.)	Average initial production (bbls.)	Drilling Nov. 30
Texas	554	13	133	1,021,500	1,800	954
East Texas†	405	...	9	938,400	2,300	234
Gulf Coast	51	1	24	54,300	1,100	162
West Texas	12	...	4	5,100	400	112
California:	19	...	5	28,400	1,500	97
Kettleman Hills	2	...	1	23,600	11,800	10
Long Beach	3	...	...	1,200	400	8
Playa del Rey	1	...	1	100	100	1
Oklahoma	65	12	34	38,900	600	344
Oklahoma County	11	...	...	24,800	2,300	36
Pottawatomie and Seminole Counties	9	...	2	7,300	800	30
New Mexico	6	1	...	36,500	6,100	59
Lea County (Hobbs)	4	...	...	36,500	9,100	10
Other States	200	64	103	24,800	100	986
Total United States	844	90	280	1,150,400	1,400	2,440

*From The Oil and Gas Journal and California office of American Petroleum Institute. †Initial production for the East Texas Field calculated from field reports.

RUNS TO STILLS AND OUTPUT OF REFINERIES, NOVEMBER, 1932
(Thousands of barrels of 42 U. S. gallons)

INPUT—	Crude oil: Domestic	Foreign	Total	Unfinished oils rerun	Natural gasoline	Total input
East Coast	10,740	2,664	13,404	902	99	14,406
Appalachian	2,764	.....	2,764	196	40	3,000
Ind., Ill., Ky. etc.	8,933	.....	8,933	208	226	9,367
Okla., Kans., Mo.	6,449	.....	6,449	335	471	7,255
Texas Inland	4,166	.....	4,166	171	318	4,655
Texas Gulf	11,931	7	11,938	262	171	12,371
Louisiana Gulf	2,525	50	2,575	84	25	2,684
Ark. and La. Inland	1,569	.....	1,569	320	49	1,938
Rocky Mountain	1,043	.....	1,043	31	87	1,161
California	12,669	.....	12,663	495	*903	14,061
Total	62,783	2,721	65,504	3,005	2,389	70,898

OUTPUT—	Gasoline	Kerosene	Gas oil and distillate fuels	Residual fuel oils	Lubricants	Wax (thousands lbs.)
East Coast	5,998	779	1,157	4,172	509	19,320
Appalachian	1,382	254	159	331	301	6,160
Ind., Ill., Ky., etc.	5,230	764	840	1,270	128	1,680
Okla., Kans., Mo.	3,924	438	590	1,391	198	3,240
Texas Inland	2,505	185	237	1,394	21	280
Texas Gulf	5,452	911	1,019	2,783	332	2,240
Louisiana Gulf	1,093	460	127	621	30	1,960
Ark. and La. Inland	744	61	172	532	7	.....
Rocky Mountain	566	40	—54	189	5	—560
California	5,277	409	1,425	5,495	113	.....
Total	†32,672	3,801	5,582	18,068	1,644	33,320

OUTPUT (Cont.)—	Coke (tons)	Asphalt (tons)	Road oil	Still gas	Miscellaneous	Unfinished products	Shortage
East Coast	17,700	78,000	56	795	21	260	176
Appalachian	2,900	6,600	—2	192	18	190	96
Ind., Ill., Ky., etc.	61,200	27,100	12	693	28	416	19
Okla., Kans., Mo.	17,900	5,800	38	264	9	124	238
Texas Inland	4,100	.....	10	97	6	39	239
Texas Gulf	28,200	10,400	9	766	1	686	202
Louisiana Gulf	3,700	7,600	6	69	87	46	77
Ark. and La. Inland	200	8,400	1	41	9	289	45
Rocky Mountain	7,300	500	15	39	.....	306	17
California	3,500	32,300	45	235	17	314	415
Total	146,700	176,700	190	3,311	196	2,670	1,525

*Includes 36,000 bbls. run through pipe lines. †Includes 373,000 bbls. special naphthas.

CRACKING OPERATIONS

Fresh cracking stock charged to stills (bbls.)	30,959,000
Gasoline produced by cracking (bbls.)	14,240,000
Fuel oil produced by cracking (bbls.)	11,026,000

PRODUCTION OF MOTOR FUEL
(Thousands of barrels of 42 U. S. gallons)

	Nov., 1932: Total	Daily av.	Oct., 1932: Total	Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931
Straightrun gasoline	15,443	515	†15,915	513	179,463	202,145
Cracked gasoline	14,240	474	†14,703	474	156,044	161,382
Natural gasoline:						
Blended at refineries	2,293	77	2,510	81	22,927	31,356
Blended at plants*	6	.....	7	.....	44	144
Run through pipe lines†	96	3	84	3	1,149	1,064
Exports and sales to jobbers	500	17	270	9	5,077	3,900
Benzol produced	94	3	91	3	1,048	1,700
Total motor fuel	32,672	1,089	33,580	1,083	365,752	401,691

*East of California. †To refineries in California. ‡Revised in Indiana-Illinois.

SHIPMENTS OF MOTOR FUEL BY PIPE LINES
(Thousands of barrels of 42 U. S. gallons)

	Nov., 1932	Oct., 1932	Nov., 1931	Jan.-Nov., 1932	Jan.-Nov., 1931
Motor fuel turned into lines	3,723	3,141	1,851	37,570	12,798
Motor fuel delivered from lines	2,564	3,089	1,674	27,094	11,045
Shortage	12	12	4	85	51
Stocks in lines and working tanks end of month	1,353	1,206	1,902	1,353	1,902

GASOLINE PRODUCED BY THE VARIOUS METHODS—NOVEMBER, 1932
(Thousands of barrels of 42 U. S. gallons)

	Straightrun: Total	Per cent (*)	Per cent (†)	Cracked: Total	Per cent (*)	Per cent (†)	Nat. gaso.: Total	Per cent (†)	Gasoline: Total	Per cent (*)
East Coast	2,512	18.7	42.6	3,282	24.5	55.7	99	1.7	5,893	43.2
Appalachian	650	23.5	46.8	698	25.3	50.3	40	2.9	1,388	48.8
Ind., Ill., etc.	2,430	27.2	46.5	2,574	28.8	49.2	226	4.3	5,230	56.0
Okla., Kans., Mo.	1,897	29.4	48.3	1,556	24.1	39.7	471	12.0	3,924	53.5
Texas inland	1,429	54.3	57.0	758	18.3	30.3	315	12.7	2,505	52.5
Texas Gulf	2,292	19.2	43.1	2,989	25.0	54.8	171	3.1	5,452	44.2
Louisiana Gulf	586	22.8	53.6	482	18.7	44.1	25	2.3	1,093	41.5
Ark. and La. Inland	355	23.6	47.7	340	21.7	45.7	49	6.6	744	44.3
Rocky Mountain	391	27.9	61.4	158	18.0	32.2	87	15.4	566	45.9
California	3,001	23.7	56.9	1,373	10.8	26.0	903	17.1	5,277	34.5
Total	15,443	23.6	48.1	14,240	21.7	44.4	2,389	7.6	32,072	45.3

*Per cent of crude run. †Per cent of total gasoline output of district.

PRODUCTION AND DISTRIBUTION OF NATURAL GASOLINE
(Thousands of barrels of 42 U. S. gallons)

	Nov., 1932: Total	Daily av.	Oct., 1932: Total	Daily av.	Jan.-Nov., 1932	Jan.-Nov., 1931
Production	2,855	95	2,924	94	32,884	40,100
Decrease in all stocks	408	14	45	2	.....	514
Total	3,263	109	2,969	96	32,884	40,614
Blended at refineries	2,293	77	2,510	81	22,927	31,356
Blended at plants east of Calif.	6	.....	7	.....	44	144
Run through pipe lines in Calif.	96	3	84	3	1,149	1,064
Exports and sales to jobbers	500	17	270	9	5,077	3,900
Increase in all stocks	.....	.....	.....	.....	231	.....
Balance	368	12	98	3	3,456	4,150
Total	3,263	109	2,969	96	32,884	40,614

STOCKS HELD BY REFINING COMPANIES, NOVEMBER 30, 1932
(Thousands of barrels of 42 U. S. gallons)

	Gasoline: At refineries	At bulk terminals	Total	Kerosene	Gas oil and distillate fuels	Residual fuel oils
East Coast	3,727	7,780	11,507	653	4,200	5,297
Appalachian	1,153	545	1,698	254	479	269
Ind., Ill., Ky., etc.	3,115	3,398	6,513	528	2,180	2,029
Okla., Kans., Mo.	3,273	748	4,021	310	1,311	2,223
Texas inland	1,543	53	1,596	66	360	2,451
Texas Gulf	5,022	210	5,232	739	2,718	6,280
Louisiana Gulf	1,250	255	1,505	173	827	2,609
Ark. and La. inland	239	85	324	22	107	426
Rocky Mountain	1,239	.....	1,239	183	125	290
California	12,159	(*)	12,159	1,390	4,568	†93,322
Total	32,720	13,074	45,794	4,324	16,775	117,196

	Wax (thousands of lbs.): Lubricants	Crude scale	Refined	Total	Coke (tons)
East Coast	2,585	22,561	20,713	43,274	42,900
Appalachian	1,075	20,075	2,625	22,710	7,900
Ind., Ill., Ky., etc.	896	24,530	1,945	26,475	100,200
Okla., Kans., Mo.	561	1,914	1,597	3,511	160,200
Texas inland	84	.....	178	178	140,100
Texas Gulf	1,867	2,885	9,498	12,383	637,700
Louisiana Gulf	65	40,851	1,747	42,598	67,000
Ark. and La. inland	11	.....	.....	.....	.....
Rocky Mountain	209	27,727	1,585	29,312	134,200
California	892	.....	.....	.....	120,400
Total	8,245	140,543	39,898	180,441	1,410,600

	Asphalt (tons)	Road oil	Miscellaneous products	Unfinished oils	Natural gasoline
East Coast	80,700	112	70	7,608	25
Appalachian	15,400	22	37	1,675	2
Ind., Ill., Ky., etc.	67,300	44	138	5,821	35
Okla., Kans., Mo.	5,800	33	21	3,351	24
Texas inland	.....	14	7	1,011	5
Texas Gulf	7,700	16	9	10,845	192
Louisiana Gulf	32,600	6	4	2,021	.....
Ark. and La. inland	20,700	.....	12	491	5
California	46,600	136	187	‡8,274	2,279
Rocky Mountain	2,700	66	...	2,250	4
Total	279,500	499	485	43,347	2,571

*Included with "at refineries." †Includes heavy crude. ‡Includes 4,929,000 bbls. tops.

Complete 1,179 Wells in December East of California With a Lull in Drilling

Notwithstanding the Christmas holidays, which, as a rule, slow up field operations while drilling crews are spending the Yuletide with their families, the number of wells completed in December in the fields east of California was only nine fewer than in November. The total number of field operations—rigs and wells drilling—at the close of December fell off 119 when compared with the November report. Following is the summary for the month:

SUMMARY OF ALL FIELDS WELLS COMPLETED

	Comp.	Prod.	Dry	Gas
Eastern	104	332	14	25
Central Ohio	32	171	7	21
Lima	10	52	2	3
Indiana	22	227	8	7
Michigan	20	3,825	6	0
Kentucky	36	975	8	4
Illinois	4	2	3	1
Kansas	55	15,324	23	0
Oklahoma	114	38,608	32	9
North Central Texas	90	1,166	51	1
E. Central and E. Tex.	372	22,585	19	0
West Texas	24	2,953	8	3
Texas Panhandle	18	9,110	2	2
Gulf Coast	97	75,500	28	1
Southwest Texas	73	12,665	38	2
North Louisiana	48	2,115	29	4
Arkansas	13	350	12	0
Mississippi	2	0	1	1
Alabama	1	0	1	0
East Texas gas area	12	0	11	1
Montana	5	670	4	1
Wyoming	11	163	2	3
Colorado	3	30	2	0
New Mexico	9	38,916	2	0
Total December	1,179	225,741	272	88
Total November	1,190	207,619	275	90
Difference	9	18,122	3	2

RIGS AND WELLS DRILLING

	Rigs	Drlg.	Ttl.
Eastern	49	132	181
Central Ohio	17	74	91
Lima	4	19	23
Indiana	3	78	81
Michigan	54	71	125
Kentucky	4	48	52
Illinois	1	12	13
Kansas	47	98	145
Oklahoma	146	331	477
North Central Texas	47	152	199
E. Central and E. Tex.	191	261	452
West Texas	26	113	139
Texas Panhandle	15	53	68
Gulf Coast	15	197	212
Southwest Texas	36	152	188
North Louisiana	56	107	163
Arkansas	14	20	34
Mississippi	3	17	20
Alabama	0	4	4
East Texas gas area	4	31	25
Montana	4	41	45
Utah	0	17	17
Wyoming	9	64	73
Colorado	8	57	65
New Mexico	10	59	69
Total December	762	2,198	2,961
Total November	737	2,343	3,080
Difference	26	145	119

Three Hundred Wells in East Texas Connected; Tyler Meeting May Be More Harmonious

By L. E. BREDBERG

DALLAS, Tex., Jan. 9—One of the most disturbing factors to proration in East Texas was eradicated on January 6 when purchasing companies agreed to connect to the some 300 unconnected wells in the field, thereby removing the possibility of "distress oil" being thrown on the market below the present posted price of 75 cents per barrel. The Magnolia Petroleum Co. agreed to connect to 40, the Sun Pipe Line Co. and the Texas Pipe Line Co. each took 36, Sinclair Prairie Pipe Line Co. 35, Shell Pipe Line Co. and Gulf Pipe Line Co. each 28, Atlantic Pipe Line Co. 20, Atlas Pipe Line Co. 3, East Texas Pipe Line Co. 25, Stanolind Pipe Line Co. 14, Simms Oil Co. 10, Empire Pipe Line Co. 14, and Arkansas Pipe Line Co. 12. This makes a total of 301. The Humble Pipe Line Co. would not connect to any more wells, but was willing to work out an exchange of present connections to help with the present connection problems, and help cut down the expense of other purchasing companies which are connecting to more wells.

With these wells connected the January 12 meeting at Tyler will be much more harmonious than with many wells remaining unconnected while the field had been continually cut, and the price to 75 cents per barrel.

Tyler Meeting Important

The meeting at Tyler is to be exceptionally important, and no doubt a large attendance will be reported, many company men and operators having been subpoenaed. The investigation into alleged irregularities in pipe line runs and production, and questioning field men of the commission will be the main features. Many operators feel that an appointive committee or body could be picked having more adequate qualifications for technical duties than elective members.

The Texas legislature will probably receive recommendation, in line with the above statement, to abolish the Texas Railroad Commission, a "Department of Public Service" being proposed as a substitute for the present elective body. The new department would then be governed by a single "commissioner of public service." Field men would be selected by this commissioner, according to their qualifications, insuring efficient helpers in the field. Two years ago an appointive board of three, consisting of men well qualified to administer to the oil industry, was recommended, but the idea was never adopted.

Newspaper reporters state that the new proration plan and schedule is having a good start in the field, with operators well satisfied with it, but personal reports from the field are otherwise. However, the connecting to the 301 wells by the purchasing companies augurs well for proration, and the enjoining of five independent producers from further violation of the commission' orders, by Attorney James V. Allred's petition for injunctions against these producers, strengthens the commission's status in the field. If operators cannot obtain injunctions against the commission, it has finally reached its pinnacle in prorating the field, unless a Federal Court order interferes.

At the East Texas Pipe Line Committee meeting, Friday, Leslie McKay, commission deputy supervisor and chairman of the committee, appointed a special committee to supervise the individual well distribution among the purchasers, to speed up the connection work. Jack Pew, Sun Oil Co.; Lee Adams, Sinclair Prairie Crude Oil Marketing Co.; and M. J. Grogan, Simms Oil Co., were appointed on this committee. All connections are to be made before January 10, when the commission's new proration order becomes effective.

Seepage Injunction

The Rancho Oil Co. is the second shallow producing oil company in the field to obtain a Federal injunction to restrain the commission from interfering with producing its two shallow "seepage oil" producers in the D. Ferguson Survey, Gregg County. The company offered to shut in its two producers when a hearing was held at Longview on December 23, but another shallow oil producing company owning near-by wells refused to meet such a plan, therefore to protect its own interests, as the railroad commission seemed to have no power in controlling such production on account of the other company having a permanent injunction against the commission, obtained a similar injunction and is now producing its wells at the rate of around 1,000 bbls. per day, running the crude to storage.

The Humble Oil & Refining Co. also has three shallow producers in this area, but has not yet applied for a similar restraining order.

The migratory oil is coming from a near-by well which apparently has a split casing which allows oil from the Woodbine sand to migrate out and upward to the shallow water sand between 700 and 800 feet.

Locations and Completions

Locations jumped to 35 this week, a gain of 10 over the past week, and completions also increased, numbering 55 this week, whereas last week there were only 49 producers completed. One wildcat location was staked in Upshur County, while only one wildcat test was abandoned in Hopkins County. Wildcatting has decreased along with field activities. Drilling may increase slightly after the January 12 hearing at Tyler, but is not expected to gain to any considerable extent, operators feeling it useless to drill in more wells under present plans and prices, and not being able to see how they will pay out drilling costs for many months under the present scheme of things.

New Allowable

All wells in East Texas now have a basic output of 26 bbls. per day, which makes a total daily production of around 250,000 bbls. for the field. The other 40,000 bbls. is distributed among the wells, on a bottom hole pressure plan. Wells having bottom hole pressure of 1,000 pounds and below will receive 2 bbls. extra; more than 1,000 pounds and less than 1,100 pounds, 2.6 bbls.; 1,100 pounds and less than 1,200 pounds, 3.2 bbls.; 1,200 pounds and less than 1,300 pounds, 3.8 bbls.; 1,300 pounds and less than 1,400 pounds, 4.4 bbls.; 1,400 pounds or more, 5 bbls. additional per day. This makes top allowable for any well 31 bbls.

Steel Storage

A recently compiled steel storage report from East Texas shows the following status of oil in storage, room and capacity of tanks in that district.

County—	Stock	Room	Capacity
Cherokee	70,300	94,700	165,000
Gregg	1,790,800	2,716,200	4,507,000
Nacogdoches .	41,300	178,700	220,000
Rusk	865,100	2,387,900	3,253,000
Shelby	443,600	146,400	590,000
Smith	147,800	282,200	430,000
Upshur	30,765	99,235	130,000

This report excludes Anderson County and Van Zandt County, which are remotely located from the East Texas Field, and do not have any connection with that field so far as steel storage is concerned.

Wildcatting Activities

Shell Petroleum Corp. is still working on its No. 1 Phillips in the Swayze Survey in Leon County in an effort to make a Woodbine sand producer of the test which has twice shown salt water on tests made on the two streaks of sand which it cored. The 6,054-58-foot streak is to be given another trial. Cement will be set in the 7-inch pipe, which was cemented at 6,039 feet, and the hole redrilled carefully, swabbing tests to be made at intervals in an effort to bring an oil producer out of what has appeared as a salt water producer.

Meyers and others' No. 1 Olson in the George Wilson Survey, Henderson County, has been deepened to 3,750 feet in shale and is bailing. No showings of oil have been made while bailing, and the test has been checked off by the majority of operators and companies as a duster. This test has been en enigma since a saturated core was reported to have been taken out of it, and those holding acreage around the test have been in as much doubt as mere bystanders.

A group of independents may drill a test four miles north of the Mustang Oil Co.'s dry hole which was drilled a couple of months ago in Cherokee County. Location of the second test for this area will be in a tract in the Levi Jordan Survey. The Mustang test was watched with considerable interest, but did not make a producer.

A. C. Brechner of Tyler has assembled a block of 6,000 acres for a Woodbine test to be drilled within 90 days. The block is southeast of De Kalb in Bowie County. There is only one other test drilling in this county, with one test shut down at 2,990 feet.

A. D. Rose of Anona has assembled approximately 6,000 acres near the town of Bogeta in the southwestern part of Red River County, and is to drill a 4,000-foot test. There is only one active test in the county, with one location and one test shut down at 2,774 feet.

Gardner and others' Trinity sand test on the Leonard-Bailey farm in the Phillip Mason Survey, northwest of the Van Pool, Van Zandt County, is again fishing. Total depth is 5,920 feet.

Taubel and Lyons have derrick up on their W. H. Duffey lease in the Starr Survey, Upshur County.

East Central Texas Wildcats

Week Ending January 9

ANDERSON COUNTY

Company, well, farm name, section and block—	Remarks:
Barclay et al's No. 1 J. C. Beard, 150 ft. out of most westerly NE cor. of 178-ac. lease, J. Trimmer Sur.	S.D. 1,518 ft.
C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in S½ of 129-ac. tract, M. Main Sur.	T.D. 1,538 ft.

ANGELINA COUNTY

Crosbie et al's No. 1 John C. Davis, 150 ft. from N of center of tract and survey, John H. Graham Sur.	S.D. 645 ft.
W. J. Chandler's No. 1 L. J. Dearman, 350 ft. from S and W lines of 20-ac. tract, J. T. Peavy Sur.	S.D. 1,223 ft.

BOWIE COUNTY

Roy Anderson's No. 1 Dyk.s, 2 miles W of Texarkana, M. Dykes Sur.	Fishing; T.D. 3,005 ft.
Tom Bell et al's No. 1 C. M. Moss, 1,800 ft. from N line and 2,160 ft. from W line of 465-ac. tract and survey, O. D. Walton Sur.	Drlg. 960 ft.

CHEROKEE COUNTY

Barkley Tate et al's No. 1 H. E. Neal, 330 ft. from N and W lines of tract, J. M. Prosella Sur.	Derrick.
Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur.	S.D. 1,550 ft.
Hooper et al's No. 1 Doctor Overton, 330 ft. from N and E lines of tract and 330 ft. out of most easterly NE cor. of survey, Wesley Dikes Sur.	Drlg. 3,080 ft.
L. J. Hopcroft et al's No. 1 J. R. Taylor, 2,600 ft. from E line and 2,000 ft. from S line of survey, G. M. Doherty Sur.	Location.
Loring Oil Co.'s No. 1 F. M. Swearingen, 330 ft. from S and E lines of 68-ac. tract, 2,800 ft. from W line and 330 ft. from S line of survey, Oliver Lund Sur., 1 mile SW of Maydelle	Coring 4,880 ft.
Mid-Tex Oil Co.'s No. 1 A. Pace (formerly Clopton), 258 ft. from N line and 330 ft. from most northerly E line of 40-ac. lease, Wesley Dikes Sur.	Prepare to run csg.; T.D. 3,665 ft.
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur.	Prepare to deepen; T.D. 3,600 ft.

DELTA COUNTY

Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur.	S.D. 3,813 ft.

ELLIS COUNTY

Armstrong's No. 1 Milton Cook, SE cor. of 50-ac. tract, S. Frederick Sur.	S.D. 375 ft. (corrected).
Armstrong Bros.' No. 1 Reeves	S.D. 300 ft.
Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft. from E and 150 ft. from S of Orland, Orlo Wheeler Sur.	S.D. 1,435 ft.
George Beasley's No. 1 Francis Borck, 850 ft. from SW line and 350 ft. from S and E lines of tract and grant, 11 League grant	Rig up.
Clark Brooks' No. 1 Anderson, SE cor. of 3,900-ac. tract, 10 miles SW of Waxachachie	S.D. 1,050 ft.

(Continued on Page 40)

COMPLETIONS IN EAST TEXAS

Cherokee County

Davis and others' No. 2 Annie Kelly, location abandoned.

North Gregg County

Atlantic Oil Production Co.'s No. 6 Harris, top sand 3,508 feet, initial pro-

duction 150 bbls. per hour through 2-inch open tubing, total depth 3,539 feet. Farland Oil Co.'s No. 1 Cemetery, top sand 3,565 feet, initial production 60 bbls. per hour through three-quarters inch tubing choke, total depth 3,595 feet. Rosa V. Glasscock's No. 2 Church Lot, top sand 3,510 feet, no gauge, total depth 3,521 feet. Gresham and Hunter's No. 1 T.&P.R.R., top sand 3,590 feet, initial production 35 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,624 feet; No. 3 T.&P.R.R., top sand 3,588 feet, initial production 37 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,620 feet. Gulf Production Co.'s No. 31 J. C. Judge, top sand 3,523 feet, initial production 90 bbls. per hour through three-quarters inch tubing choke, total depth 3,554 feet. Humble Oil & Refining Co.'s No. 10 Killingsworth, top sand 3,584 feet, initial production 76 bbls. per hour through three-quarters inch tubing choke, total depth 3,626 feet; No. 3 W. C. Mackey, top sand 3,617 feet, initial production 55 bbls. per hour through three-quarters inch tubing choke, total depth 3,621 feet. S. H. Killingsworth's No. 1-D State, top sand 3,457 feet, initial production 35 bbls. in one-half hour through 1-inch tubing choke, total depth 3,505 feet. Lee Brothers' No. 2 Sam Kay, top sand 3,665 feet, initial production 38 bbls. in one-quarter hour through 2½-inch open tubing, total depth 3,677 feet.

Magnolia Petroleum Co.'s No. 6 G. W. Richey, top sand 3,615 feet, initial production 120 bbls. per hour through 1-inch tubing choke, total depth 3,623 feet. Primrose Oil Co.'s No. 3 Blackstone, top sand 3,549 feet, initial production 35 bbls. in one-quarter hour through open tubing, total depth 3,589 feet. Sells Petroleum Co.'s No. 7 Fisher, top sand 3,592 feet, initial production 150 bbls. per hour through 2-inch open tubing, total depth 3,672 feet. Shell Petroleum Corp.'s No. 11 H. Hampton, top sand 3,639 feet, initial production 28 bbls. in one-half hour through tapered tubing, total depth 3,706 feet; No. 12 H. Hampton, top sand 3,585 feet, initial production 25 bbls. in one-half hour through tapered tubing, total depth 3,542 feet. Sinclair Prairie Oil Co.'s No. 24 Moncrief, top sand 3,549 feet, initial production 40 bbls. in one-quarter hour through 2½-inch open tubing, total depth 3,589 feet. Stanolind and Simms Oil Co.'s No. 11-A Flewellen, top sand 3,654 feet, no gauge, total depth 3,683 feet.

South Gregg County

Bass and Dillard's No. 3-A S. Carr, top sand 3,453 feet, initial production 25 bbls. in one-half hour through five-sixteenths inch tubing choke, total depth 3,490 feet; No. 1-B Sam Carr, top sand 3,458 feet, initial production 40 bbls. in one-half hour through five-sixteenths inch tubing choke, total depth 3,490 feet. Gulf Production Co.'s No. 18 G. W. Culver, top sand 3,518 feet, no gauge, total depth 3,555 feet; No. 6 G. Davis, derrick abandoned; No. 49 Hilburn estate, top sand 3,602 feet, no gauge, total depth 3,617 feet. Houston Oil Co.'s No. 5 S. B. Hall, top sand 3,655 feet, initial production 120 bbls. per hour through 2-inch open tubing, total depth 3,666 feet. Sid Latham, receiver's No. 2 Clayborn, top sand 3,704 feet, no gauge, total depth 3,706 feet. Petroleum Finance Corp.'s No. 6 W. D. Lacy, top sand 3,552 feet, initial production 30 bbls. in one-quarter hour through open 2-inch tubing, total depth 3,663 feet. Quad Corp.'s No. 5-B Duncan, top sand 3,545 feet, initial production 75 bbls. per hour through three-quarters inch tubing choke, total depth 3,547 feet. E. J. Raddatz' No. 4 M. T. Cole, location abandoned. Rhoades Drilling Co.'s No. 4 Sabine River, top sand 3,445 feet, initial production 30 bbls. in one-half hour through 1-inch tubing choke, total depth 3,463 feet.

Shell Petroleum Corp.'s No. 10-A M. H. Bivens, top sand 3,568 feet, initial production 20 bbls. in one-half hour through tapered tubing, total depth 3,600 feet; No. 7-B J. S. Elder, top sand 3,550 feet, initial production 20 bbls. in one-half hour through tapered tubing, total depth 3,612 feet. J. B. Sowell's No. 3 W. P. Luce, location abandoned. George W. Foster's No. 1 Sam Carr, top sand 3,500 feet, no gauge, total depth 3,537 feet. Tidal Oil Co.'s No. 16 E. R. Bivens, top sand 3,586 feet, initial production 7 bbls. in five minutes through 2-inch open tubing, total depth 3,592 feet.

North Rusk County

Gulf Production Co.'s No. 1 N. Peterson, top sand 3,550 feet, dry and abandoned, total depth 3,631 feet (J. C. Barnett Survey). Humble Oil & Refining Co.'s No. 76, L. D. Crim, top sand 3,623 feet, initial production 90 bbls. per hour through three-quarters inch tubing choke, total depth 3,671 feet; No. 6-A H. Sexton, top sand 3,661 feet, initial production 98 bbls. per hour through three-quarters inch tubing choke, total depth 3,697 feet. Magnolia Petroleum Co.'s No. 8 C. G. Still, top sand 3,655 feet, initial production 28 bbls. in 22 minutes through 1-inch tubing choke, total depth 3,679 feet; No. 6 D. Wells, top sand 3,673 feet, initial production 28 bbls. in four hours pumping, total depth 3,713 feet. Shell Petroleum Corp.'s No. 13 Russell, top sand 3,570 feet, initial production 25 bbls. in one-half hour through tapered tubing, total depth 3,663 feet; No. 8 J. H. Spivey, top sand 3,665 feet, no gauge, total depth 3,725 feet.

South Rusk County

C. & P. Oil Co.'s No. 3 Thrash, top sand 3,708 feet, initial production 90 bbls. per hour through 1-inch tubing choke, total depth 3,752 feet. A. P. Cary's No. 1 Redwine, top sand 3,505 feet, initial production 20 bbls. per hour through 1-inch tubing choke, total depth 3,672 feet. Gulf Production Co.'s No. 3 W. A. Maxwell, top sand 3,800 feet, initial production 65 bbls. per hour through three-quarters-inch tubing choke, total depth 3,810 feet. Humble Oil & Refining Co.'s No. 25 W. L. Price, top sand 3,688 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,792 feet; No. 28 W. L. Price, top sand 3,691 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,752 feet; No. 12 J. E. Wheelis, top sand 3,757 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,762 feet; No. 7-B Haywood White, top sand 3,612 feet, initial production 39 bbls. per hour through three-quarters-inch tubing choke, total depth 3,720 feet. Lide and Rowe's No. 4 C. Young, top sand 3,698 feet, initial production 75 bbls. per hour through open 2-inch tubing, total depth 3,758 feet. Sibling and Williams' No. 2 Goforth, top sand 3,748 feet, initial production 30 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,757 feet. Standard Oil Co. of Kansas' No. 3 C. F. O'Quinn, location abandoned.

The Texas Company's No. 11 W. W. Henry, top sand 3,662 feet, initial production 95 bbls. per hour through open 2-inch tubing, total depth 3,666 feet; No. 2 G. G. Turner, top sand 3,617 feet, initial production 27 bbls. per hour through open 2-inch tubing, total depth 3699 feet. Tide Water Oil Co.'s No. 6-A Thompson, top sand 3,662 feet, initial production 60 bbls. per hour through 2-inch tubing, total depth 3,714 feet.

Smith County

British-American Oil Co.'s No. 4 Thompson, top sand 3,742 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,743 feet. Smith Oil & Gas Co.'s No. 3 S. S. Cooke, top sand 3,639 feet, initial production 150 bbls. per hour through open 2½-inch tubing, total depth 3,649 feet.

Upshur County

Louis Godlin's No. 3 Mackey, top sand 3,717 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,727 feet. Sun Oil Co.'s No. 12 J. Hargraves, top sand 3,708 feet, initial production 6 bbls. per hour through tapered tubing, total depth 3,713 feet. R. H. Vice and others' No. 2 L. Graves, top sand 3,654 feet, initial production 25 bbls. in one-quarter hour through open 2-inch tubing, total depth 3,660 feet. J. Z. Werby and others' No. 2 Ben H. Reed, top sand 3,622 feet, initial production 25 bbls. in one-quarter hour through open 2-inch tubing, total depth 3,628 feet.

WILDCAT COMPLETIONS

Hopkins County

E. P. Corley's No. 1 J. D. Jumper, abandoned, total depth 1,630 feet.

Humble Oil & Refining Co. Announces It Will Increase East Texas Purchases

HOUSTON, Tex., Jan. 9.—The Humble Oil & Refining Co., Thursday, announced it would purchase, retroactive to January 1, 75 per cent of the oil offered in the East Texas Field from its pipe line connections instead of 60 per cent as formerly. It was said the change was brought about by the fact the authorized total production of the field is now lower than at the time of inauguration of the 60 per cent arrangement and that Humble thus found itself able to accept a proportionately larger amount of the production.

The East Texas Field now is permitted under orders of the Texas Railroad Commission to produce a total of 290,000 bbls. daily. When Humble announced its former policy of buying 60 per cent from its connections and storing 40 per cent, the allowable production was 310,000 bbls.

Under the new policy the company will run for storage under current tariffs that part of the allowable production not purchased by it, in cases where owners have signed storage orders.

Increase in the amount of purchase by the Humble in East Texas is in line with statements made by President W. S. Farish at a recent Austin hearing when he said that when the Humble's outgo of oil and products permitted the company to purchase a larger percentage he would do so.

He said the nominations of his company, totaling 247,000 bbls. daily (corrected) were based on an estimate of total current requirements, and contemplated no reduction of oil in storage.

The Humble's oil in storage he placed at approximately 14,000,000 bbls., of which 1,750,000 bbls. was held for the credit of producers under its restricted buying plan. Oil held for producers, he said, was subject to delivery at any point on the company lines elected by the producer. If delivery was made in the field, the only pipe line charge was the gathering charge of 5 cents per barrel, he said. If at some other point, the charge was the gathering charge and the tariff to the delivery point selected by the producer. Room in Humble storage was placed at about one-half of the oil in storage, or about 7,000,000 bbls.

In reply to questions at that time, Mr. Farish supposed that in emergency an additional amount could be placed in field storage, but that the amount of such storage had not been calculated and such utilization had not been contemplated in the past.

To another questioner he said that the filling of storage with cheap oil to be worked off later on a higher market was a practice from the past, which could not be worked in this day and time. When the company making such a play elected to force its storage oil into liquidation it would drive prices down to the point where there was no profit in it.

Mr. Farish said the company had reduced storage somewhat earlier in the year, but had not in recent months. He said the company's own production, under proration, was within 5,000,000 bbls. of its own refinery requirements of about 36,000,000 bbls. per year, and had increased from 13,000,000 bbls. in 1926. However, he later pointed out that the production of Texas had increased at approximately the same rate in that time. In addition to its own refinery requirements, however, the company is buying about 186,000 bbls. per day for others, chiefly for the needs of its parent concern, Standard of New Jersey.

Ira Cram Made Chairman Tulsa Geological Society

At the annual meeting of the Tulsa Geological Society held on Monday, Ira Cram, Pure Oil Co., Tulsa, was elected chairman, John Ferguson, Amerada Petroleum Corp. and Ed F. Shea, Stanolind Oil & Gas Co., vice chairmen, and Stanley B. White, Mid-Kansas Oil & Gas Co., secretary-treasurer. All the officers are Tulsa residents. The new council will be composed of Lucien Walker, Gardner Petroleum Co.; Robert M. Whiteside, Shell Petroleum Corp. and R. B. Rutledge, Skelly Oil Co. Robert H. Dott, the retiring chairman, presented a paper on the "Structural History of the Arbuckle Mountains."

Mr. Cram was elected a Fellow of the Geological Society of America at the meeting held the latter part of December in Cambridge, Mass. Fanny C. Edson, also a member of the Tulsa Geological Society, was similarly honored. Russell S. Knappen, Gypsy Oil Co., Tulsa, and chairman of the Tulsa Geological Society for the 1931 term, has been elected a member of the council of the Geological Society of America.

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ending January 7 follow:

	Bbls.
WYOMING	
Salt Creek	20,700
Big Muddy	1,590
Badger Basin	50
Byron (East)	40
Dallas-Derby	400
Dutton Creek	70
Elk Basin	580
Ferris	20
Frannie	320
Grass Creek	170
Greybull	10
Hudson	360
LaBarge	1,390
Lance Creek	60
Lost Soldier	2,230
Mule Creek	100
Midway	100
Oregon Basin	290
Osage	820
Pilot Butte	30
Rock River	1,070
Poison Spider	50
Teapot	30
Total Wyoming	30,480
MONTANA	
Buckley-Border	460
Cat Creek	800
Cut Bank	160
Dry Creek	100
Kevin-Sunburst	3,180
Lake Basin	50
Pondera	1,030
Total Montana	5,780
COLORADO	
Florence	210
Fort Collins and Wellington	710
Iles Dome	550
Moffat	650
Orchard	210
Rangely	100
Tow Creek	240
Total Colorado	2,670
NEW MEXICO	
Artesia	460
Caprock	700
Hogback	210
Jal	1,042
Table Mesa	76
Eunice	510
Hobbs	21,295
Lea	2,287
Texas-Pacific	93
Rattlesnake	700
Total New Mexico	27,381
Total Rocky Mountain area	66,311
Total previous week	65,148
Difference	1,163

Ordovician Test in Crockett County May Make Producer; Coring Hard Lime at 7,405 Feet

By L. E. BREDBERG

Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Jan. 9.—The Stanolind Oil & Gas Co. and others' Ordovician test in Section 67, Block UV, G.C.&S.F. Survey, Crockett County, is again coring after failing to make a producer when tested last week. It topped the Ordovician at 4,006 feet, where 7-inch casing was set, and the Ellenberger lime at 7,247 feet. Sufficient saturation was believed to have been cored to make a high gravity oil producer out of the test, but when tested it showed but a slight trace of oil. The last report from the field announced it coring in hard lime at 7,405 feet. If a porous streak of lime is cored, which is expected, the test is considered as having exceptionally good chances for making a producer, consequently will be watched closely as cored deeper.

Continental Oil Co.'s two shallow tests to perpetuate leases on acreage held in Block WX, G.C.&S.F. Survey, Crockett County, are down below 800 feet and should reach the shallow gas pay around 1,800 feet in a week's time. One is in Section 23 and the other in Section 26, a short distance northwest of the unitized Ordovician test.

Ector County

Harrison, Turner and others are drilling on their No. 1 Addis in Section 35, Block 43, Township 2s, T.&P. Survey, in an effort to pick up heavier saturation in this third pool opener of Ector County, thereby making a larger producer of it. Total depth has been 3,986 feet, but the owners are not putting out any information now, and it is not known just how much deeper they have penetrated the lime from which it is producing. Pay was topped at 3,862 feet in the test.

Landreth Production Co.'s No. 1 Holt, interesting test in Section 15, Block 43, Township 1n, T.&P. Survey, 2½ miles northwest of the two Stanolind Oil & Gas Co. producers, northern Ector County, topped the lime at 3,910 feet and is now shut down at 3,933 feet with casing cemented. Plug is scheduled to be drilled on January 10 and a test made.

Schleicher County

Wesner and Phillips Petroleum Co.'s Ellenberger lime test in Section 77, Block LL, T.C.R.R. Survey, Schleicher County, has drilled by two strings of tools and is now making new hole around 5,655 feet. Phillips Petroleum Co. and Eastland Oil Co.'s No. 1 Tisdale in Section 29, Block M, G.H.&S.A. Survey, same county, is still fishing. Total depth is 5,410 feet. These are two interesting tests, but both have been standing shut down for many months, until taken over by the Phillips Petroleum Co., which is operating them. They will no doubt be the two most interesting tests in the district until abandoned or encountering Ellenberger production.

Fisher County

Cranfill & Reynolds were reported to be plugging No. 1 George, deep test drilled in Section 200, Block 1, B.B.B.&C. Survey, northeastern Fisher County, after plugging back from total depth of 6,494 feet to 6,078 feet and given a shot from 5,840-6,060 feet, failing to make a producer out of the showing formerly encountered at 6,054-58 feet.

Howard-Glasscock

Operators in the Howard-Glasscock Pools have proposed to the Railroad Commission at a hearing held in Austin January 7, that this area be considered as two separate pools for proration purposes.

One operator claimed that the east side of the field was discriminated against in favor of the west side. He said the potential basis of fixing the output was unfair because the east side wells were old, were of a marginal nature, and facing a water hazard.

The commission was told that there were 436 wells on the east side and only 96 wells on the west side, the east side wells having an allowance of 16 bbls. each per day, and the west side wells 70 bbls. per day. It was claimed the potential of the west side was approximately twice that of the east side. The commission has taken the matter under advisement and will issue order accordingly.

WICHITA FALLS-RANGER

The Ranger or West Central Texas district has been curtailed to 27,500 bbls. per day, based on marginal well production. There are 100 leases having 217 wells which are without pipe line connections, many of these wells being without connections for a long period of time.

D. L. Wolfe and associates opened a small well, having an initial production of 25 bbls., on their R. D. Andrews lease in Section 1,807, T.E.&L. Survey, in the south central part of Archer County. The new well, which opens another small producing area, logged shallow sand from 853-59 feet, and was completed at a total depth of 864 feet. This new well is in the Wichita Falls district.

COMPLETIONS IN WEST TEXAS

Ector County

Duffey and others' No. 1 Rutledge, top salt 1,100 feet, elevation 2,967 feet, dry and abandoned, total depth 4,250 feet. Phillips Petroleum Co.'s No. 1 Scharbauer, top salt 1,164 feet, top pay 3,707 feet, shot with 110 quarts 3,700-51 feet, again shot with 200 quarts at 3,703-55 feet, initial production 75 bbls. per day, total depth 3,755 feet.

Glasscock County

Tribal Oil Co.'s No. 3 Edwards, top pay 3,703 feet, shot with 290 quarts 2,703-13 feet, initial production 187 bbls. in 44 hours' pumping, total depth 2,813 feet.

Loving County

Eppenauer Drilling Co.'s No. 1 Victor, total depth 4,360 feet, plugged back to 4,348 feet; elevation 2,751 feet; top salt 810 feet; top lime 4,302 feet; top pay 4,344 feet; shot with 210 quarts 4,298-4,348 feet; initial production 157 bbls. first 14 hours.

Ward County

Abell Brothers' No. 4 Smith, top salt 980 feet, shot with 150 quarts 2,297-2,382 feet; top pay 2,290 feet; initial production 175 bbls.; total depth 2,382 feet. Leidecker and others' No. 2 Bennett, top pay 2,400 feet, initial production 150 bbls., total depth 2,578 feet.

Winkler County

Richardson and others' No. 1 Scarborough, top salt 1,210 feet, top pay 2,895 feet, initial production 67 bbls., total depth 3,020 feet; No. 2 Sealy, top salt 1,030 feet, top pay 3,103 feet, initial production 300 bbls., total depth 3,105 feet.

Jones County

Condor Petroleum Co.'s No. 1 Sayles, top pay 1,915 feet, initial production 204 bbls., total depth 1,915 feet.

COMPLETIONS IN PANHANDLE DISTRICT

Carson County

Skelly Oil Co.'s No. 14 East Schaffer, dry and abandoned, total depth 3,206 feet, rainbow show oil at 3,200-05 feet.

Gray County

Graham, Cree and Hoover's No. 1 Barrett, top pay 3,142-45 feet, initial production 80 bbls. per day pumping, total depth 3,205 feet. The Texas Company's No. 15 Williams, top pay 2,685 feet and 2,720 feet, initial production 323 bbls. on gas lift 24 hours, total depth 2,735 feet. Texoma Natural Gas Co.'s No. 1-E Yowell, top pay 2,494 feet, 2,574 feet, 2,635 feet and 2,651 feet, initial production 7,100,000 feet of gas, total depth 2,651 feet. The Texas Company's No. 4 Faulkner (old total depth 2,875 feet), initial production before deepening 75 bbls., new total depth 2,924 feet, increase in oil at 2,915-24 feet, initial production 120 bbls.; No. 5 Patton, old total depth 3,000 feet, 1 bbl. oil before deepening, dry and abandoned, total depth 3,160 feet.

Hobbs Pool Proration

Operators in the Hobb Pool, New Mexico, met at the Texas Hotel in Fort Worth on January 5 to draw up a new plan of proration, similar in fact, to the present plan, but providing that any company may withdraw upon 60 days' notice, while the present order specifies that a company can withdraw upon only 30 days' notice after end of the first six months' period.

About 75 per cent of the producing companies were represented at the meeting.

The present order expires January 10, having been in use for the past three years. Allowable in the pool is now more than 21,000 bbls. per day, based 75 per cent on potential and 25 per cent on acreage.

Governor Arthur Seligman of New Mexico championed the present proration program and operators in the field expect that his approval will be given to a continuation, the new plan probably not being accepted.

The pool has produced a total of over 28,571,600 bbls. up to January 1, 1933.

Wildcat Operations in West Texas

Week Ending January 9

Company, well, farm name, section and block—	Remarks:
BREWSTER COUNTY	
Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE Sec. 100, Blk. 2, G.C.&S.F. Sur.	S.D. 1,302 ft.
Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 352, W. J. Mitchell Sur.	S.D. 500 ft.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 930 ft. from N and 2,500 ft. from E of Sec. 18, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.
CONCHO COUNTY	
Beasley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur.	T.D. 2,586 ft.; pumping 5 bbls. oil per day and some water.
Simmons et al's No. 1 Schultz, 150 ft. from W and center N and S of E half of J. Weber Sur., Abst. 154.	T.D. 1,435 ft.
CROCKETT COUNTY	
Chambers et al's No. 1 Hoover, 1,650 ft. N and 330 ft. from E, Sec. 1, Blk. FF, B.&B. Sur.	S.D. 1,960 ft.
Continental Oil Co.'s No. 1 Todd, 660 ft. from S and E of Sec. 23, Blk. WX, G.C.&S.F. Sur.	Drlg. 780 ft.
Continental Oil Co.'s No. 1 Todd, 1,640 ft. from S and 660 ft. from E, Sec. 26, Blk. WX, G.C.&S.F. Sur.	Drlg. 835 ft.
Doleman & Moore's No. 1 Ferner, 3,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, I.&G.N. Sur.	Spudded and S.D.
Stanolind Oil & Gas Co. et al's No. 1 Todd, 1,370 ft. from N and 1,320 ft. from E, Sec. 67, Blk. UV, G.C.&S.F. Sur.	Tested dry; prepare to drill deeper; T.D. 7,358 ft.
The Texas Company's No. 1 B. B. Ingham, 330 ft. from S and 2,330 ft. from E line, Sec. 36½, I.&G.N. Sur.	T.D. 2,071 ft; set 8¼-in. csg.
J. D. Young Co.'s No. 1 Shannon, 330 ft. from N and W, Sec. 35, Blk. 1, G.C.&S.F. Sur.	S.D. 1,747 ft.
CULBERSON COUNTY	
Harris & Haun's No. 1 fee	S.D. 2,670 ft.
Milton-Dorsey's No. 1 Biggs, 4,181 ft. from N and 150 ft. from E, Sec. 2, Blk. 112, P.S.L. Sur.	Location.
ECTOR COUNTY	
J. M. Cooper et al's No. 1 Cowden, 2,310 ft. from S and W, Sec. 16, Blk. 43, Twp. 2s, T.&P. Sur.	Location.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W, Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.	T.D. 3,986 ft.
Landreth Prod. Co.'s Holt, C SW of SE Sec. 15, Blk. 43, Twp. 1n, T.&P. Sur.	Drlg. 3,905 ft.
Stanolind O. & G. Co.'s No. 1 Cowden, 330 ft. from S and 1,320 ft. from W, Sec. 26, Blk. 43, Twp. 2s, T.&P. Sur.	Bldg. derrick.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 33, Blk. 43, Twp. 3s, T.&P. Sur.	S.D. 1,950 ft.
H. F. Wurtz' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW Sec. 16, Blk. 46, Twp. 3s, G. M. M.Br.&A. Sur.	S.D. 3,605 ft.
EL PASO COUNTY	
Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.F. No. 7,247	S.D. 3,190 ft.
FISHER COUNTY	
Cranfill & Reynolds' No. 1 George, 400 ft. from N and 380 ft. from E, Sec. 200, Blk. 1, B.B.B.&C. Sur.	T.D. 6,078 ft.; fishing tools 5,930 ft.
O'Donnell's No. 1 Pardue, 330 ft. from S and E lines of N half of SW Sec. 202, B.B.B.&C. Sur.	Location.
Southern Oil Co.'s No. 1 Purdue, 990 ft. from S and E Sec. 202, Blk. B, B.B.&C. Sur.	T.D. 3,105 ft.; T.P. 3,105 ft.; storage full.
GARZA COUNTY	
Southern Oil Corp.'s No. 1 Boren, 990 ft. N, 660 ft. E, Sec. 36, Blk. 5, H.&G.N. Sur.	Machine.

(Continued on Page 42)

John B. Coman of Journal Staff Answers Last Call

John B. Coman, aged 27 years, assistant to the advertising manager of The Oil and Gas Journal, died in Tulsa January 7 of pneumonia after an illness of three weeks. Funeral services were con-

JOHN B. COMAN

ducted by Monsignor Sevens in the church of Christ The King, Tulsa, on Monday morning at 9 o'clock, and interment was in the Catholic Cemetery.

Mr. Coman had been connected with The Oil and Gas Journal for nine years. He is survived by his widow, Mrs. Nettie Coman, and a 7-months-old son, Mike.

Will Publish Book as Sidney Powers Memorial

The American Association of Petroleum Geologists announces the preparation of Volume 3 of "Structure of Typical American Oil Fields" to be published as a memorial edition dedicated to the memory of the late Dr. Sidney Powers. At the time of his death Doctor Powers was acting as editor of this volume and to commemorate this and his many contributions to the literature of geology and geophysics the A.A.P.G. has decided to publish it as a memorial.

Subscriptions for this volume are now being received at the association headquarters in Tulsa at the rate of $5 per copy, the money to form the Sidney Powers Memorial Publication Fund and checks should be made out in that form.

The book will contain about 800 pages with 40 illustrations and be 6x9 inches in size and cloth bound. It is planned to have the book ready for distribution early this spring.

Report of Committee on Production Practice

(Continued from Page 11)

duct which make its recovery economically impossible. The principal causes of underground waste are the dissipation of or the failure to utilize efficiently reservoir energy and the irregular or premature encroachment of water.

"Physical surface waste occurs when there is loss of oil on the surface of the ground or loss incident to poor or excessive surface storage or loss of gas by escape into the air.

"The committee finds that it is difficult to lay down a single and unvarying rule to be applied in every oil pool where each tract is separately operated by its owner, to attain the result of a distribution among all owners in proportion to the recoverable oil and gas in their respective lands. This is because underground conditions vary so much as between pools. Each pool must be considered in the light of its own peculiar facts. But, general rules can be set forth to guide those charged with the duty of deciding what the criterion ought to be. These general rules are:

General Rules

"1. (a) Equitable ratable production should be practiced in each pool.

"(b) In newly discovered pools equitable ratable production conforming to the new conception will be accomplished by allowing each property in the pool to produce from day to day or time to time that proportionate part of the daily allowed production in the pool that the estimated recoverable oil under each such property at the opening of the pool bears to the total estimated recoverable oil in the pool at such time.

"When estimates as of said time are not to be had, then the ratios should be based on estimates as of the earliest practicable date. Estimates subsequently found to be in error should be corrected and adjustments in production corrected accordingly. In cases of the application of the new conception to pools already developed and under operation the estimated recoverable oil would doubtless have to be made in view of conditions existing at the time the new conception is applied thereto, in as much as disproportionate production previously taking place would probably have to be regarded as permitted.

"Petroleum engineers are devoting additional study to the subject of equitable ratable production to carry out the new conception and will probably suggest qualifications of the above statement on the subject. The engineers believe that a study of subsurface pressures will give very important data for regulation of production to accomplish ratable production.

"(c) The relative recoverable reserves of oil and gas in place in the several separately owned tracts of land in a pool which has been proven as to area by drilling, can be estimated with reasonable accuracy from time to time in the course of the operation of the pool by a practical application of the necessary and known factors and comparing the various proven tracts one with another, where the formation is of uniform sand or is of limestone of uniform texture. This may not always be accomplished where the formation is composed of unconsolidated sands or of cavernous limestone.

"2. Production of gas from free gas areas in oil pools should be restricted to whatever extent necessary to prevent migration of oil into such areas and to secure maximum recovery of oil from the oil areas.

"Under the new conception the owners of the gas areas are entitled to reasonable compensation for their gas which is used in oil recovery or for delay in production. This compensation may take any one or more of a variety of forms dependent upon the existence or nonexistence of a market and other factors. For example, the gas cap owners may receive in lieu of gas through their wells gas at proper pressures produced from oil wells; or, they may be paid in money or in oil for the volume of gas involved; or, residue or other gas may be returned to the gas cap in similar volume and at practical working pressures.

Pool Allowable

"3. The total pool allowable production should never exceed the amount that can be produced therefrom without physical waste. If under physical operating conditions the pool could otherwise produce in excess of the reasonable market demand for oil therefrom, nevertheless, the allowable production should in no event exceed such reasonable market demand for the reason that if production is not so limited the takings will be disproportionate and unratable and both physical waste and inequities as between properties will necessarily result.

"4. In as much as the majority of producers depend upon crude oil purchasers for an outlet for their production it will be necessary that the buyers of oil purchase and take ratably from all producers. Where there is more than one buyer in a pool they can distribute their connections and takings so as to give every such dependent producer an outlet for his daily permitted production. This is readily obtainable when production does not exceed reasonable market demand for oil from the pool.

"5. Unit operation is the best method for approaching and accomplishing the new conception in oil production because it enables the operators in a single pool to determine the physical characteristics of the pool in a most orderly and scientific manner and to inaugurate and carry out a development and production program best adapted to the pool involved and to adjust by common agreement the rights and equities of all owners therein. In the event the laws of the State do not now permit agreements for unit operations, its conservation agency should be empowered, with proper public safeguards, to authorize such agreements.

New Conception

"It is believed the new conception of oil production can be approached by the application of the foregoing principles. Where necessary the police power of the State should be exerted in the effort to attain this conception; and state administrative agencies should be invested with authority to conduct hearings, collect data and information and prescribe general and specific rules and regulations to that end.

"Since the date of the adoption of the resolution of the board and the appointment of this committee, the Supreme Court of the United States, in its decision in the Champlin case, and the Austin Court of Civil Appeals of Texas, in its decision in the Danciger case, have upheld statutes of Oklahoma and Texas, respectively, which broadly invoked the exercise of the police power in the conservation of oil and gas and expressly upheld the authority of conservation agencies of said states to limit the production of oil to the reasonable market demand therefor and to prorate the production from the several properties in a pool upon a fair and reasonable basis. The Champlin case involved the 1915 Oklahoma oil conservation statute, which is still in force, and the Danciger case involved the Texas conservation statutes which were in force prior to the August 12, 1931, amendment thereof.

"The Legislature of Texas has only last week enacted a new statute, approved by the governor, which constitutes a real contribution toward the attainment of the new conception.

"Respectfully submitted: Charles F. Roeser, chairman; C. B. Ames, W. N. Davis, W. S. Farish, Wirt Franklin, W. P. Z. German, R. E. Hardwicke, A. W. Peake, J. Edgar Pew, E. B. Reeser, Oscar Sutro, C. A. Young (secretary)."

President Seubert Takes Hopeful View of 1933

CHICAGO, Jan. 9.—E. G. Seubert, president of Standard Oil Co. (Indiana), takes a hopeful view of the prospects for the oil industry for 1933, although he asserts there are many difficulties to be overcome before predictions that the industry will lead business out of the depression can materialize. The decrease in consumption of oil products has enchanced the difficulty of arriving at a balance of crude oil supply with demand, a small but powerful minority has prevented attainment of stabilization aimed at, and surplus crude moving under distress conditions is exerting a depressing influence in the market for refined products. Relief of oil products from the special tax discrimination to which they have been subjected is essential to future prosperity of the industry, Mr. Seubert says.

"The higher crude prices of 1932 have enabled oil companies generally to make a better financial showing than in 1931. With crude production failing to adjust itself to the lower requirements of the present, the outlook for further improvement is not especially promising. There must also be a marked betterment in the wholesale and retail market situation of the industry before predictions that the oil industry will lead business out of the depression will have any real prospect of fulfillment.

"We feel that the affairs of Standard of Indiana are comparable with those of other companies in the industry. Considering the decline in consumption we have held our own volume of sales. Realizations have not been entirely satisfactory, owing to the necessity of meeting everywhere the price-cutting policies of competitors. We have endeavored to hold as closely as possible to the policy of not selling at a loss for the sake of volume. We have made further progress in simplifying our corporate structure. Prospects for the future hinge, as they do for all oil companies, largely on the success of the co-operative efforts which are being made to balance crude production with demand and eliminate unsound and unfair practices in marketing."

UNIVERSITY ROYALTIES

AUSTIN, Tex., Jan. 9.—The University of Texas received $202,283 more in oil royalties during 1932 than it collected in 1931. In 1932 a total of $1,201,402.46 was received, compared with $999,779.31 in 1931. Since the university has been receiving royalties from oil property, $15,968,181.79 has been collected. The money is placed in a permanent fund and income from it used for permanent improvements.

J. J. CONNER DIES

J. J. Conner, a field gauger for the Sinclair Prairie Pipe Line Co. passed away January 5 at Skiatook, Okla. He was 42 years old and had spent 22 years with the affiliated companies.

East Central Texas Wildcats

(Continued from Page 37)

Paris Oil Co.'s No. 1 O. S. Bain, 1,500 ft. from S line and 360 ft. from W line of 60-ac. lease, R. M. Williams Sur. ..... S.D. 985 ft.

FRANKLIN COUNTY

Whiteoak Oil Co.'s No. 1 O. C. Clanton, 750 ft. from S line of survey and 150 ft. from W line of survey, S. McCreary Sur. ..... Bldg. derrick.

FREESTONE COUNTY

Clyde Creighton's No. 1 Holley Bros., 854 ft. from W line and center of N and S lines of lease, A.B.M. Sur. ..... S.D. 3,669 ft.

GREGG COUNTY

C. H. Brown et al's No. 1 Johnson, center of 1½-ac. lease, G. W. Hooper Sur. ..... Drlg. 1,400 ft.

Roy Bumpass et al's No. 1 fee, 350 ft. from W line of survey and 100 ft. from S line of survey, L. J. Rigsby Sur. ..... Drlg. 2,710 ft.

Burke Royalty Co.'s No. 1 Carr, center of 200-ac. tract and lease, M. McCurry Sur. ..... Rig up and S.D.

A. P. Carr's No. 2 G. W. Rickey, N offset to Barker's No. 1 Rickey, William Carlton Sur. ..... Set surface csg.

Clark & Cowden's No. 1 Sheppard, 100 ft. from N line and 50 ft. from W line of Black's No. 5, M. Dillard Sur. ..... Waiting on cmt. to set 3,595 ft.

J. W. Crockett's No. 1 B. D. Russell, NW offset to Schuiman's No. 1 Doris, M. V. Winkle Sur. ..... Waiting on standard rig; T.D. 3,540 ft.

J. E. Davant's No. 2 R. H. Rowland, 300 ft. S and 50 ft. W of Magnolia's No. 2 R. H. Rowland, M. V. Winkle Sur. ..... Drlg. 2,175 ft.

Joe Edgar et al's No. 2 Stinchcomb, 79 ft. N and 36.4 ft. W of most northerly SW cor. of Stanolind's Key lease, W. H. Hart Sur. ....Moving in.
E. & F. Oil Co.'s No. 2 M. Jackson, 330 ft. from S line and center of E and W lines of 16.66-ac. lease, G. F. Penn Sur. ....Derrick.
Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur. ....Derrick.
Guinn Petroleum Co.'s No. 1 J. S. and F. Elder, 200 ft. NE of Solar's No. 1 Elder, and 450 ft. SE of Martin's No. 1 Elder, M. V. Winkle Sur. ....Testing; T.D. 3,593 ft.
P. L. Hoffman's No. 3 Phillips, 330 ft. from W line and center of N and S lines of lease, D. Ferguson Sur. ....Rig up.
E. M. Jones' No. 1 L. D. Crim, 330 ft. from N line and center of E and W lines of 10-ac. tract, M. V. Winkle Sur. ....Swabbing; T.D. 3,586 ft.
Knox et al's No. 1 Clayton, 330 ft. from E line and center of N and S lines of lease, L. B. Outlaw Sur. ....Waiting on cmt. to set 3,528 ft.
Edwin Lacy's No. 2 fee, center of 1½-ac. tract, M. V. Winkle Sur. ....Location.
J. M. Lapin's No. 1 fee, 437 ft. S and 224 ft. E of NE cor. of Humble's Knowles lease in 1.09-ac. tract, M. V. Winkle Sur. ....S.D. 3,560 ft.
Lion Oil & Refining Co.'s No. 2 Evans, S offset to Sinclair Prairie's No. 10 Williams, F. McAnnelly Sur. ..Derrick.
Magnolia Petroleum Co.'s No. 6 J. Allen, 188 ft. from E line of lease and 307 ft. S of No. 4, G. W. Hooper Sur. ....Drlg. 400 ft.
Ray Martin's No. 1 Tubbs, 100 ft. NE of SW cor. of 6-ac. lease, D. Sanches Sur. ....Set surface csg.
McGee et al's No. 2 M. O. Sheppard, offset to Showers & Moncrief's No. 1 Sheppard, G. R. Rains Sur. ....Derrick.
J. C. Means' No. 4 W. D. Luce, SW offset to Blue Star's No. 3-G, E. L. Walker Sur. ....Skidding derrick.
Monte Oil Co.'s No. 3 M. Finn, 60 ft. from N and E lines of lease, D. Ferguson Sur. ....Drlg. 300 ft.
Quad Corp.'s No. 1 F. Duncan, 75 ft. SW of Blue Star's No. 6-A Sabine River, G. F. Penn Sur. ....Derrick.
Rajo Oil Co.'s No. 2 Barrett, 378 ft. from N line and 330 ft. from W line of lease, B. W. Witcher Sur. ..Derrick.
Rhoades Drilling Co.'s No. 10 Sabine River (Tract No. 4), 378 ft. from No. 9 and 400 ft. from No. 11, State Sur. ....Waiting on cmt. to set 3,485 ft.
Rhoades Drilling Co.'s No. 3 Sabine River (Tract No. 7), 2,310 ft. from E line and 2,390 ft. from W line ....Foundation.
Sun Oil Co.'s No. 1 A. G. Morton, 1,200 ft. S of NW cor. and 306 ft. E of W line of lease, S. Baggett Sur. ....Drlg. 1,895 ft.
Sun Oil Co.'s No. 2 A. G. North, 318 ft. from W line of lease and 551 ft. from No. 1, S. Baggett Sur. ....Derrick.
L. W. Tarkington et al's No. 1 B. Robinson, 150 ft. from N and W lines of 68-ac. lease (old Atlantic & Pacific lease), S. S. Davis Sur. ....S.D. 3,511 ft.
The Texas Company's No. 6 Phillips, 623 ft. W and 170 ft. S of NE cor. of 18-ac. lease, H. R. Hokit Sur. ....Derrick.
Tidal Oil Co.'s No. 2 J. S. Elder, 284 ft. from S line and 330 ft. SE of NW line of lease, M. V. Winkle Sur. ....Waiting on cmt. to set 3,520 ft.
W. C. Turnbow's No. 2 McKinley, 125 ft. N and 420 ft. E of NE cor. of Yount Lee's Harley lease, D. Sanches Sur. ....Derrick.
Universal Oil & Gas Co.'s No. 3 Adkins, 750 ft. S of No. 1, D. Dainwood Sur. ....Waiting on cmt. to set 150 ft.
Y Oil Co.'s No. 2 A. M. Kinsel, 330 ft. from E line and center of N and S lines of lease, H. Kirk Sur. ..Waiting on cmt. to set 102 ft.

HENDERSON COUNTY

B. L. Green et al's No. 1 M. H. Gussett (old well drilled deeper), 150 ft. from N line and 1,000 ft. from W line of 105.5-ac. tract, 3 miles SW of Mabank, L. D. Stover Sur. ....S.D. 3,328 ft.
Dr. J. T. Kennon et al's No. 1 Rowe & Baker, 1,320 ft. from N line and 150 ft. from W line of survey and tract, Josiah T. Childress Sur. ....S.D. 920 ft.
H. H. Meyer's No. 1 M. E. Olson, 2 miles S of Brownsboro tract in NW cor. of survey, George Wilson Sur. ....Cored Taylor shale 3,719-22 ft.; bailed dry; no show; S.D.; T.D. 3,722 ft.

HILL COUNTY

T. J. Spikes' No. 1 M. H. Davis, 150 ft. from S and E lines of 55-ac. tract, H. R. Alexander Sur. ....Cleaned hole; prepare to test; T. D. 1,550 ft.

HOPKINS COUNTY

Burgess and Sinson's No. 1 First Natl. Bank, 470 ft. N and W of SE cor. D. Buie Sur., but located in the H.E.P.&P.R.R. Sur. ....S.D. 1,708 ft.

HUNT COUNTY

A. Kelsey et al's No. 1 W. R. Berry, 450 ft. from S line and 300 ft. from E line of 139-ac. tract, J. Roads Sur. ....Location.

KAUFMAN COUNTY

Hay-Bentley-Brewer et al's No. 1 J. B. Hunter, 300 ft. from S line and 150 ft. from SE line of 500-ac. tract, 4 miles S of Terrell, R. Sowell Sur. ....Derrick.

LAMAR COUNTY

Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ....Rig up; T.D. 2,446 ft.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen Sur. ....S.D. 2,170 ft.
Shell-Penn & Black's No. 1 W. M. Phillips ....Will test csg.; T.D. 6,149 ft.

LIMESTONE COUNTY

Miller Drilling Co. and Joiner's No. 1 J. A. Stephenson, 400 ft. from S line and 300 ft. from E line of lease, one-fourth mile SE of Kosse, Charles Welch Sur. ....S.D. 3,110 ft.

MORRIS COUNTY

Grover Hart's No. 1 Walcott and Lott, 250 ft. from N line and 330 ft. from E line of survey, 3 miles S of Carson, B. A. Russell Sur. ....S.D. 1,550 ft.
Joiner & Harris Drilling Co.'s No. 1 Clayton Brown, 1,625 ft. N. of most easterly SW cor. of survey, William M. Coffey Sur. ....S.D. 1,550 ft.
Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 150 ft. from E line of 65-5-ac. tract, J. D. Nelson Sur. ....Cored 3,674-79 ft.; 2 ft. of soft sand.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nickels & Daniels, center of S 780 acres of 1,808-ac. tract, 8 miles N of English, Hugh B. Shaw Sur. ....Location.
Concord Oil Co.'s No. 1 J. R. Dallahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ....S.D. 2,774 ft.
L. G. Priest's No. 1 R. W. Peck, 900 ft. N and 500 ft. S of southerly SE cor. of 220-ac. tract, A. Wagley Sur. ....S.D. 1,302 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tract in W. M. Bird Sur. ....Set 10-in. csg. 130 ft.

RUSK COUNTY

Big Indian Oil Co.'s No. 1 Joe Lee, 172 ft. from S line and 990 ft. from W line of 24-ac. lease, Peter Tipps Sur. ....Swabbed through tubing showed some salt water; S.D. 3,646 ft.
Bodine et al's No. 1 G. W. Cooper, 1,760 ft. N and 330 ft. E of SW cor. of Ximenes Sur. ....S.D. 3,593 ft.
A. P. Cary's No. 1 Redwine, 150 ft. from N and W lines of Lot No. 7 on 5-ac. lease, Juan Ximenes Sur. ....Swabbing; T.D. 3,550 ft.
T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ....S.D. 3,812 ft.
Cranfill & Reynolds' No. 1 W. J. Weatherby, 1,400 ft. from E line and 7,200 ft. from S line of survey, Wade J. Walters Sur. ....Set surface csg. 132 ft.
Fair & Thompson's No. 1 D. Bradford, S offset to Hunt's No. 1-D Bradford, Juan Ximenes Sur. ....Waiting on cmt. to set 3,563 ft.
Farrell Drilling Co.'s No. 1 W. W. Hammett, 330 ft. from N and E lines of 100-ac. lease, Walker Pettit Sur. ....Drlg. 2,300 ft.
Griffin & Barnes' No. 1 fee, 12 ft. from S and W lines of 2-ac. tract, J. B. De Cadena Sur. ....Location.
Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ....Derrick.
Hathaway et al's No. 1 Gray, J. M. McLain Sur. ....S.D. 3,905 ft.
Gulf Production Co.'s No. 3 Elmora Cole, 330 ft. from N and E lines of lease, S. P. Hollingsworth Sur. ....Derrick.
H. B. W. Oil Co.'s No. 2 Redwine, 150 ft. from E line and center of Payne's No. 1 Redwine, Juan Ximenes Sur. ....Derrick.
Hudson's No. 1 Jeff Phillips, 150 ft. from N line of survey and 640 ft. from W line of 100-ac. tract, 4 miles SE of Minden, Nepomucene Villarea Sur. ....S.D. 1,500 ft.
Humble Oil & Refining Co.'s No. 2 C. H. Hedge, 330 ft. from N and W lines of lease, J. C. Barnett Sur. ....Derrick.
Humble Oil & Refining Co.'s No. 1 J. D. Taylor, 330 ft. from W line of lease and S offset to No. 1 Hedge ....Derrick.
Humble Oil & Refining Co.'s No. 5 R. A. Barksdale, 906 ft. from N line and 565 ft. from E line of 76-ac. lease, S. P. Hollingsworth Sur. ....Drlg. 2,927 ft.; top Pecan Gap 3,780 ft.
Humble Oil & Refining Co.'s No. 9 C. J. Thompson, 700 ft. from S line and 950 ft. from W line of 116-ac. lease, M. J. Pru Sur. ....Top Austin chalk 3,533 ft.; T.D. 3,614 ft.
Iotex Oil Co.'s No. 3 Tom Beall, W offset to Ward Oil Co.'s No. 3 Beall, P. W. Holmes Sur. ....Derrick.
J. Jeagen's No. 1 Needham, 330 ft. from N line of lease and 330 ft. from NE and 400 ft. from SE of survey, J. H. Chambers Sur. ....S.D. 1,414 ft.
Jenkins Bros.' No. 1 Daisy Bradford, 150 ft. from W line of 45-ac. tract, Juan Ximenes Sur. ....Drlg. 1,300 ft.
Kimble & Acre's No. 1 Frederick, 150 ft. from S line and center of E and W lines of 10-ac. lease, Juan Ximenes Sur. ....Derrick.
Lide & Rowe's No. 4 C. Young, 150 ft. from N and E lines of 20-ac. lease, M. J. Pru Sur. ....Drlg. 3,728 ft.
Lucy Petroleum Co.'s No. 4 D. B. Gill, 330 ft. from N and W lines of lease, W. A. Elliott Sur. ....Derrick.
Orr et al's No. 1 J. C. Hale, 590 ft. E and 330 ft. S of NW cor. of 50-ac. tract, M. V. Pena Sur. ....Drlg. 3,615 ft. (corrected).
Overton Refining's No. 2 Maxwell, 70 ft. S of J. E. Oliver's No. 1 G. Pool, F. Cordova Sur. ....Drlg. 2,490 ft.
Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ....S.D. 1,465 ft.
R. O. Payne's No. 1 Redwine, 200 ft. from N and W lines of Lot No. 3, Juan Ximenes Sur. ....Bailing; T.D. 3,608 ft.
Sandifer et al's No. 1 L. J. Pinkston, S offset to Champlin and Bass' No. 1 Pinkston, J. B. De Cadena Sur. ....Derrick.
Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ....T.D. 3,387 ft.
Smith and Sikes' No. 2 W. H. Frederick, 150 ft. from S and E lines of 10-ac. lease, Juan Ximenes Sur. ....Waiting on cmt. to set 3,547 ft.
Snyder et al's No. 2 Stewart, 174 ft. NW of No. 1 and 190 ft. SE of C. L. Archer's No. 1 J. H. Stewart, John Womack Sur. ....Derrick.
Stanolind Oil & Gas Co.'s No. 1 Bettie Coleman, 330 ft. from S and W lines of 320-ac. lease, James Burke Sur. ....Drlg. 1,650 ft.
Sun Oil Co.'s No. 4 R. J. Hendon, 330 ft. from W line of lease and 332 ft. S of No. 3, Juan Ximenes Sur ....Drlg. 2,633 ft.
Sun Oil Co.'s No. 5 R. J. Hendon, 330 ft. from N and E lines of 120-ac. lease, Juan Ximenes Sur. ....Derrick.
Tidal Oil Co.'s No. 8 Jack Bean, 330 ft. from S line of lease and 255 ft. E of No. 5, J. Lewis Sur. ....Drlg. 3,200 ft.

SMITH COUNTY

McCullough Oil Co.'s No. 2 Church, 100 ft. from S line and center of E and W lines of lease, J. Jordan Sur. ....Drlg. 1,665 ft.
McRabie et al's No. 1 C. P. Hamilton, 330 ft. from S and E lines of 255-ac. tract, Jackson Rector Sur. ..Rig up and S.D.
Mundt et al's No. 1 W. E. Murray, 330 ft. from S and E lines of lease, 5 miles SE of Tyler, Marshall Wynn Sur. ....Fishing; T.D. 4,875 ft.
M. M. Rowan et al's No. 1 Gibbons Mfg. Co., 5,900 ft. from S line and 8,050 ft. from W line of survey ....Moving in rig; T.D. 3,610 ft.
Sinclair Prairie Oil Co.'s No. 6 Patterson, 330 ft. from N and W lines of lease, J. Vargas Sur. ....Temp. abnd.; T.D. 3,753 ft.
Sun Oil Co.'s No. 7 J. A. Layne, 330 ft. from S line and 201 ft. from E line of lease, S. Dexter Sur. ....Testing; T.D. 3,666 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ....T.D. 4,212 ft.

UPSHUR COUNTY

Creighton Drilling Co.'s No. 2 Hargraves, 330 ft. from S line of lease and 660 ft. W of No. 1, M. Mann Sur. ....S.D. 3,743 ft.
H. W. Elliott et al's No. 1 W. H. Reid, 435 ft. from S and W lines of E 39 acres of 54-ac. lease, Marshall Mann Sur. ....Testing, T.D. 3,685 ft.
F. A. Fuller et al's No. 1 Shattesworth, 330 ft. from S and E lines of W 50 acres of 100-ac. tract, James Dunn Sur. ....Spudded.
Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1¼ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ....Waiting orders 3,710 ft.
Lynch and McQuaig's No. 1 L. T. Mackey, 330 ft. from S line of road and 230 ft. from E line of road, Sarah Harrell Sur. ....Testing; T.D. 3,711 ft.
Magnolia Petroleum Co.'s No. 9 H. Hampton, 330 ft. from S line of lease and 791 ft. E of No. 6, D. Ferguson Sur. ....Set surface csg. 103 ft.
George Pace et al's No. 1 D. C. Shelton, N offset to C. L. Brown's No. 1 D. C. Shelton, William King Sur. ....Derrick.
L. B. Pruitt's No. 1 B. F. Phillips, 150 ft. N and 330 ft. W of most southerly SE cor. of 81.6-ac. tract, William Goodwin Sur. ....Derrick.
J. F. Roberts et al's No. 3 A. L. Jenkins, 317 ft. from N line of lease and S offset to Humble's No. 5 Phillips, H. Edwards Sur. ....Top sand 3,629 ft.; T.D. 3,654 ft.
Taubel & Lyons' No. 1 W. H. Duffy, 330 ft. from N and E lines of NW 50-ac. tract, Starr Sur. ....Rig up.
Travis & Weir's No. 1 L. P. League, 330 ft. from N line and 330 ft. from W line of N 18 acres of L. P. League Sur. ....Derrick.
Twin Oil Co.'s No. 2 C. J. Mackey, 330 ft. from S line of lease and 660 ft. W of No. 1, J. M. Pineda Sur. ....Testing; T.D. 3,706 ft.

Wadley and Evans' No. 1 W. S. Jones, 330 ft. from S and E lines of 100-ac. lease, James M. Dunn Sur. ... Top sand 3,671 ft.; T.D. 3,690 ft.
Wadley & Lyons' No. 1 Hall, 150 ft. out of NW cor. of H. E. Hall 14-ac. tract, William McKay Sur. .... T.D. 3,560 ft.
Waggoner et al's No. 2 Williams, center of 5-ac. lease, McKinley and Williams Sur. ..... Drlg. 2,650 ft.
Watson's (formerly Kinsey) No. 1 D. F. Smith, 466 ft. from S line and 1,165 ft. from E line of 266-ac. tract, J. R. Davis Sur. ..... S.D. 1,856 ft.
J. E. Werby's No. 3 Read, 330 ft. from S line of lease and 490 ft. W of No. 1 T. Hopkins Sur. ..... Derrick (corrected).

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 235-ac. tract, 3½ miles S of Canton, M. J. De Cadena Sur. ..... S.D. 3,300 ft.
Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tract, John Conner Sur. ..... S.D. 2,300 ft.
Killum & Chisum's No. 1 N. E. Clark, 165 ft. out of most westerly NW cor. of tract, 2 miles S of Van, Jackson Thomas Sur. ..... S.D. 3,036 ft.
Killum & Chisum's No. 1 J. J. Goode, 150 ft. from N line and 375 ft. from E line of lease, 5 miles SW of Van, David Rose Sur. ..... Derrick.
Lyman et al's No. 1 J. C. Stewart, 150 ft. from N line and 650 ft. from W line of 90-ac. tract, A. McPhail Sur. ..... T.D. 2,731 ft.
Peden-Olson's No. 1 W. S. Brannon, 305 ft. from N and 150 ft. from W lines of 45-ac. tract, 2½ miles N of John Goodman Sur. ..... Set csg. 300 ft.
Pure Oil Co.'s No. 3 M. Elliott, 300 ft. E of W line and 225 ft. S of N line of lease, A. H. Wiley Sur. .... Set csg.
Pure Oil Co.'s No. 6 O. L. L. Swain, 250 ft. N of S line and 250 ft. W of E line of 40.7-ac. tract, John Walling Sur. ..... Cmt. setting 2,364 ft.
Pure Oil Co.'s No. 4 B. W. Russell, 150 ft. S of N line and 325 ft. W of E line of 30-ac. tract, David Rose Sur. ..... Drlg. 712 ft.
A. C. Rowan's No. 1 W. E. Price, 150 ft. from N line and 150 ft. from W line of 28-ac. tract, John Walling Sur. ..... S.D. 2,942 ft.
Roy Stumpff's No. 1 M. I. Riggs, 169 ft. from E line and 250 ft. from S line of tract No. 2 and 330 ft. from E line of lease, 4 miles NE of Van, William Daniel Sur. ..... Rig up and S.D.
H. C. Teague et al's No. 1 C. W. Morris, 1,000 ft. from N line and 300 ft. from E line of 160-ac. tract, 5 miles SE of Ben Wheeler, C. L. Morrison Sur. .... Cleaning out; T.D. 3,097 ft.
Van Oil Association's No. 1 Tankersley, 300 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 2,850 ft.
C. O. Weir's No. 1 W. B. Tunnell, 150 ft. from N and W lines of lease, A. H. Wiley Sur. ..... T.D. 3,002 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 350 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur.... S.D. 3,335 ft.
Hull & Short's No. 1 T. H. Peterson, 600 ft. from E line and 300 ft. from E line of 320-ac. tract and survey, 4 miles E of Mineola, W. B. McNutt Sur. ..... T.D. 2,810 ft.
Sinclair Prairie Oil Co.'s No. 1 M. R. Sayner, 330 ft. from N and W lines of Blk. No. 19, one-half mile N of Elberta, J. M. Chandler Sur. ..... S.D. 4,379 ft.
Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ..... S.D. 3,340 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 180 ft. from S line of 160-ac. tract and 2¼ miles S of Kantes in Sarah McDonald Sur. ..... S.D. 4,200 ft.

Wildcat Operations in West Texas

(Continued from Page 39)

GLASSCOCK COUNTY

Empire G. & F. Co.'s No. 1 Hall, 330 ft. from N and 2,290 ft. from W. Sec. 21, Blk. 33, Twp. 2s ..... T.D. 2,110 ft.; tested 51⅛ bbls. of oil in 1 hr.
Lawson's No. 2-B Edwards, 370 ft. from S and W. Sec. 16, Blk. 33, Twp. 2s, T.&P. Sur. ..... Location.
Llano Oil & Dev. Co.'s No. 1 Edwards, 330 ft. S and E. Sec. 17, Blk. 33, Twp. 2s, T.&P. Sur. ..... Drlg. 810 ft.
Phillips Pet. Co.'s No. 3 Baker, 338 ft. from N and 2,305 ft. from E. Sec. 31, Blk. 33 ..... Reaming 2,080 ft.

HOWARD COUNTY

F.H.E. Oil Co.'s No. 1 Dodge, 330 ft. from N and E. Sec. 15, Blk. 31, Twp. 1s, T.&P. Sur. ..... Location.
Harrison et al's No. 3 Denman, 2,310 ft. from N and 330 ft. from E. Sec. 10, Blk. 30 ..... Show oil 2,520-35 ft. and 2,570-90 ft.; swabbed 30 bbls. oil to shoot.
James et al's No. 3 Chalk, 946 ft. from S and 150 ft. from E of NE Sec. 114, Blk. 29, W.&N.W. Sur. ..... Top pay 1,164 ft.; est. 30 bbls. oil per day; T.D. 1,165 ft.
Myers et al's No. 1 Denman, 2,305 ft. from S and 2,320 ft. from E. Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. .... T.D. 1,560 ft.
Mid-Continent Oil & Gas Co.'s No. 1 Denman, 990 ft. from S and 330 ft. from E. Sec. 10, Blk. 30, Twp. 1s, T.&P. Sur. ..... T.D. 2,813 ft; putting on pump.
Sinclair Prairie Oil Co.'s No. 3 Dodge, 1,650 ft. from S and 429 ft. from W. Sec. 11, Blk. 30, Twp. 1s, T.&P... S.D. 2,800 ft.; no pumping gauge.
Sinclair Prairie Oil Co.'s No. 4 Dodge, 960 ft. from S and 330 ft. from W. Sec. 11, Blk. 30, Twp. 2s, T.&P. Sur. ..... Drlg. 705 ft.
Southern Oil Corp.'s No. 1 Williams, 430 ft. from N and 330 ft. from W of S 122 acres of W half Sec. 43, Blk. 30, Twp. 1s, T.&P. Sur. ..... Location.

HUDSPETH COUNTY

Patillo-Welsh's No. 1 Briggs ..... S.D. 1,135 ft.; may plug.

IRION COUNTY

Bristow et al's No. 2 Nutt, 2,550 ft. N, 1,000 ft. W. Sec. 6, Gonzales County School Lands Sur. ..... Spudded and S.D.
Straughn et al's No. 1 Kaiser, 1,930 ft. from N and 1,390 ft. from W. Sec. 69, H. Cooper Sur. ..... Drlg. 750 ft.

JONES COUNTY

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 43.4-ac. tract in G. Martinez Sur. ..... S.D. 1,005 ft.; temp. abnd.
Croft et al's No. 2 Swann, 4,350 ft. from S and 1,700 ft. from E. I. Miley Sur. No. 280 ..... Set 8-in. csg. 2,345 ft.
Dyer's No. 1 Odom, 300 ft. from S and 170 ft. from W of N 320 acres, G. Zumwalt Sur. ..... Rig.
Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of N half of Sec. 29, Blk. 18, T.&P. Sur. ..... Drlg. 2,290 ft.
Smart & Raynold's No. 1 Reynolds, 2,500 ft. from N and 150 ft. from W. Sec. 2, W. T. Scott Sur. No. 3... S.D. 1,400 ft.
C. S. Spelling et al's No. 1 Lillie, 300 ft. from N and W Sec. 4, E. Miller Sur. No. 2 ..... S.D. 2,030 ft.
Southern Oil Co.'s No. 1 Swann, 1,000 ft. from E and 900 ft. from S. of I. Miley Sur. ..... Spudded and S.D.
Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ..... Location.

LOVING COUNTY

A. & M. Pet. Corp.'s No. 1 Wheat, 2,310 ft. SW, 990 ft. SE, Sec. 71, Blk. 1, W.&N.W. Sur. ..... Cellar.
Goldman et al's No. 1 Allen, 330 ft. from NE and NW of Sec. 90, Blk. 1, W.&N.W. Sur. ..... Drlg. 4,335 ft.
Eppenauer Drlg. Co.'s No. 1-A Victor, 330 ft. from SW and 338 ft. from SE of NW of N half Sec. 4, Blk. 3, W.&N.W. Sur. ..... Location.
Goldman et al's No. 2 Allen, 330 ft. from NW, 2,310 ft. from SW, Sec. 90, Blk. 1, W.&N.W. Sur. ..... Shut down.
Goldman et al's No. 1 Reagan-McElvain, 330 ft. from NE, 2,310 ft. from NW, Sec. 84, Blk. 1, W.&N.W. Sur.. Shut down.
Lewis & Slagel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 56, Twp. 1, T.&P. Sur... S.D. 2,280 ft.
Martin et al's No. 1 Wheat, 990 ft. from SW and SE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... S.D. 4,067 ft.
Martin's No. 2 Freels, 4,175 ft. from NE and 412 ft. from NW, Sec. 92, Blk. 1, W.&N.W. Sur. ..... Run csg.; T.D. 4,040 ft.
Miller et al's No. 1 Ferguson, 990 ft. from NE of Sec. 44, Blk. 29 ..... Spudded and S.D.
Thomas' No. 1 Wheat, 2,310 ft. from NW, 990 ft. from NE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... T.D. 4,030 ft.

PECOS COUNTY

Cardinal Oil Co.'s No. 3-G Tippett, 660 ft. from S and 330 ft. from E of No. 2 Tippett, Sec. 61, Blk. 194, G.C.&S.F. Sur. ..... T.D. 302 ft.
Cardinal Oil Co.'s No. 15-E Tippett, 330 ft. N and W of center of Sec. 46, Blk. 194, G.C.&S.F. Sur. ..... Drlg. 540 ft.
Cooper et al's No. 1 Perry, 1,980 ft. N and W, Sec. 15, Blk. C-4, G.C.&S.F. Sur. ..... Drlg. 785 ft.
Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 39, G.C.&S.F. Sur., Blk. 194 ..... Location.
Massey's No. 1 Iowa Realty Trust, 150 ft. from NE and 1,483 ft. from NW, Sec. 21, Blk. 10, H.&G.N. Sur. .... Spudded and shut down.
Messinger et al's No. 1 Jones, 1,300 ft. from NW, 1,290 ft. from SW, Sec. 5, Blk. 9, H.&G.N. Sur. ..... S.D. 752 ft.
Winfield et al's No. 1 Eaton, 1,170 ft. from NE and 2,490 ft. from SE, Sec. 35, Blk. 3, H.&T.C. Sur. ..... Drlg. 600 ft.

PRESIDIO COUNTY

Sadler et al's No. 1 Bledsoe, 2,640 ft. from N and W Sec. 15, Blk. 354, G.C.&S.F. Sur. ..... S.D. 328 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 7-C University, 1,570 ft. from W and 725 ft. from S, Sec. 25, Blk. 9 ..... T.D. 8,825 ft.; producing.
Big Lake Oil Co.'s No. 1-C University ..... S.D. 9,562 ft.
Big Lake Oil Co.'s No. 8-C University, 710 ft. from S and 2,410 ft. from E, Sec. 12, Blk. 2 ..... Tested 40 bbls. of oil in 2 hrs. and 15 min.; T.D. 6,487 ft.
Big Lake Oil Co.'s No. 9-C University, 2,410 ft. from N and 765 ft. from E, Sec. 12, Blk. 2 ..... Drlg. 3,713 ft.
Big Lake Oil Co.'s No. 181 University, 1,700 ft. from S and 2,000 ft. from W, Sec. 10, Blk. 2 ..... S.D. 2,800 ft.
Continental Oil Co.'s No. 6-B University, 765 ft. from N and 1,980 ft. from W, Sec. 36, Blk. 9 ..... Drlg. 6,047 ft.
Continental Oil Co.'s No. 7-B University, 1,980 ft. from N and 660 ft. from W, Sec. 36, Blk. 9 ..... Drlg. 693 ft.
Continental Oil Co.'s No. 8-B University, 1,320 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... Set surface csg. at 107 ft.
Group Oil Corp.'s No. 5-B University, 2,700 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... T.D. 8,485 ft.; flowed 967 bbls. oil in 24 hrs.
J. P. Williams et al's No. 1 Scott, 1,650 ft. from N and 330 ft. from W, Sec. 179, Blk. 1, T.&P. Sur. ..... Spudded and S.D.

REEVES COUNTY

Cordova Union Oil Co. et al's No. 1 Wright, 1,330 ft. from S and W, Sec. 58, Cassell's Sur. ..... Drlg. 1,730 ft.
McDorman et al's No. 1 Ray Roberts et al, 2,310 ft. from S and E lines of Sec. 22, Blk. 59, P.S.L. Sur.... S.D. 2,025 ft.

RUNNELS COUNTY

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-30 ft.; S.D. 3,600 ft.
John Castor's No. 1 Hall, 330 ft. from S and W, Sec. 149, E.T.R.R. Sur. ..... Machine.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ..... T.D. 5,410 ft.
Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... Drlg. by tools 5,530 ft.
George Wilson's No. 1 Page, Sec. 40, Blk. L, 1,290 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ..... S.D. 5,053 ft.

SCURRY COUNTY

G. E. Dickman et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 275, Blk. 3, H.&T.C. Sur. ..... S.D. 5,100 ft.
W. S. Guthrie's No. 1 Clarkson, 1,320 ft. from S and W, Sec. 243, Blk. 97, H.&T.C. Sur. ..... Drlg. 1,510 ft.
Heinzleman et al's No. 1 Hood, 436 ft. from N and 489 ft. from E, Sec. 87, Blk. 3, H.&T.C. Sur. ..... S.D. 990 ft.
Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 68, Blk. 3, H.&G.N. Sur. ..... Spudded and S.D.
Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ..... S.D. 4,992 ft.

TAYLOR COUNTY

Urban's No. 1 Blair, 1,500 ft. from S and 150 ft. from W of NE 198 varas Guadalupe County School Lands, Lot 21 ..... T.D. 1,390 ft.; setting 10-in. csg.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M-K-T Sur. ..... S.D. 2,269 ft.
Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Georgetown Ry. Sur. ..... S.D. 2,150 ft.
McPhee-Briggs' No. 1 Kern, 330 ft. from S and W, Sec. 15, Blk. D-5, M-K-T Sur. ..... S.D. 500 ft.
Miller Bros.' No. 1 Allison & Burke, C NW Sec. 10, Blk. 176, T.&P. Sur. ..... S.D. 120 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S. Sec. 26, Blk. 161, G.C.&S.F. Sur.. S.D. 6,120 ft.
Jones et al's No. 1 Pankenham, C SE NW Sec. 43, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ..... S.D. 2,545 ft.
Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ..... S.D. 3,525 ft.

TOM GREEN COUNTY

Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 587 ft. from E of John McNeese Sur. ..... S.D. 760 ft.; S.O. and gas 725 ft.
Mintex Oil Co.'s No. 1 Campbell Est., 446 ft. from S and 630 ft. from W of Sec. 180, Dist. No. 11, S.P. Sur. .... S.D. 1,994 ft.
Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ..... S.D. 200 ft.

UPTON COUNTY

Clark-Cooper's No. 1 Lane, 2,310 ft. from N and 990 ft. from E, Sec. 36, Blk. 1, M-K-T Sur. ..... S.D. 2,270 ft.; swabbing and cleaning out.
Gulf Prod. Co.'s No. 102 McElroy, 1,320 ft. from S and W, Sec. 189, Blk. F, C.C.S.D.&R.G.N.G. Sur. ..... Location.
White's No. 1 Lane, 2,310 ft. from S and 990 ft. from E Sec. 36, Blk. 1, M-K-T Sur. ..... S.D. 2,355 ft; plugging.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 31, Blk. 1, I.&G.N. Sur. ..... S.D. 400 ft.
O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, I.&G.N. Sur., elev. 2,130 ft. ..... S.D. 6,780 ft.

WARD COUNTY

Abell Bros.' No. 2 Sloan, 990 ft. from NE and NW, Sec. 24, Blk. 5, H.&T.C. Sur. ..... Cellar.
Abell Bros.' No. 1 Hazlett, 1,650 ft. from NW and 1,320 ft. from SW, Sec. 3, Blk. 5, H.&T.C. Sur. ..... S.D. 2,480 ft.
Atlantic Oil Prod. Co.'s No. 1 University, 330 ft. S and E, Sec. 3, Blk. 16 ..... Drlg. 1,790 ft.
Atlantic Oil Prod. Co.'s No. 1 Blank-Camp, 1,320 ft. from NW and SW Sec. 14, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,408 ft.
Atlantic Oil Prod. Co.'s No. 1 Jones, 330 ft. from SW and 1,650 ft. from SE, Sec. 25, Blk. B-29, P.S.L. Sur... S.D. 2,067 ft.
Bentley et al's No. 1 Carson, 1,650 ft. from NE and SE Sec. 26, Blk. 5, H.&T.C. Sur. ..... Drlg. 1,795 ft.
Bradford's No. 1 Carson, 1,650 ft. from SE and 990 ft. from NE Sec. 36 ..... S.D. 898 ft.

Bundy et al's No. 1 Bennett, 2,310 ft. from NW and SW Sec. 16, Blk. 34, H.&T.C. Sur. ..... S.D. 2,248 ft.
Eastland Oil Co. et al's No. 1 Grimes, 445 ft. from NE and 1,320 ft. from SE Sec. 14, Blk. 34, H.&T.C. Sur.... Drlg. 2,468 ft.
Eastland Oil Co.'s No. 2 Grimes, 495 ft. from NE and 440 ft. from SE, Sec. 14, Blk. 34, H.&T.C. Sur. ..... Location.
Eastland Oil Co.'s No. 3 Weiss, 954 ft. from NW and 284 ft. from NE of Sec. 4, Blk. 34 ..... S.D. 2,385 ft.; est. 150 bbls. of oil per day.
Eppenauer's No. 1 Purcell, 365 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 14, H.&T.C. Sur. ..... T.D. 3,740 ft.
Eppenauer Drlg. Co.'s No. 1 University, 330 ft. from N and 440 ft. from E of S half of Blk. 16 ..... Material on ground.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S. 990 ft. from W. Sec. 9, Blk. 3, B.&B. Sur. ..... Cellar.
H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... S.D. 2,223 ft.
Gulf Prod. Co.'s No. 14 Hutchings, 330 ft. from N and W of Sec. 9, Blk. O ..... T.D. 2,625 ft.; pumped 62 bbls. oil and 25 bbls. of water.
Gulf Prod. Co.'s No. 15 Hutchings, 1,932 ft. from S and 990 ft. from W, Sec. 5, Blk. F ..... Drlg. 2,365 ft.
Gulf Prod. Co.'s No. 23 O'Brien, 330 ft. from N and 990 ft. from E Sec. 13, Blk. F ..... Drlg. 2,633 ft.
Gulf Prod. Co.'s No. 25 O'Brien, 330 ft. from N and W Sec. 20, Blk. F ..... T.D. 2,705 ft.; flowing 196 bbls. oil per day.
Gulf Prod. Co.'s No. 26 O'Brien, 3,347 ft. N, 330 ft. E. Sec. 16, Blk. F ..... Drlg. 110 ft.
Kregie et al's No. 1 Keasler, 3,062 ft. from SE, 330 ft. from NE, Sec. 46, Blk. 34, H.&T.C. Sur. ..... S.D. 2,000 ft; plugged back to 1,452 ft; flshing.
Magnolia Pet. Co.'s No. 1 Brillhart, 2,310 ft. from NW and SW, Sec. 13, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,720 ft.
Maxwell's No. 1 Smith, 330 ft. from NW and SW, Sec. 26, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,750 ft.
R. F. Owen's No. 1 Lee, 1,344 ft. from NW and 4,532 ft. from SW, Sec. 1, J. Howe Sur. ..... S.D. 2,720 ft.; plugging.
Penn Oil Co.'s No. 1 Hardage-Wilson, 330 ft. from NE and SE Sec. 11, Blk. 34, H.&T.C. Sur. ..... Fishing 2,465 ft.
Rector Oil Co.'s No. 1 Monroe, 660 ft. from NE and SE, Sec. 62, Blk. 33, H.&T.C. Sur. ..... Drlg. 3,864 ft.
Rixford-Fuglarr's No. 1 London, 660 ft. NW, 330 ft. NE E cor. Sec. 10, Blk. 32, H.&T.C. Sur., but in Sec. 3 ..... S.D. 2,291 ft.
Skelly Oil Co.'s No. 1 Brillhart, 2,310 ft. from NW and NE, Sec. 13, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,160 ft.
Southern Oil Co.'s No. 1 Sloan, 1,650 ft. from NE and 330 ft. from NW, Sec. 34, Blk. 5, H.&T.C. Sur. ..... Material on ground.
Stanolind Oil & Gas Co.'s No. 1 Whitlock, 495 ft. NE, 2,200 ft. SE, Sec. 14, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,461 ft.
Sturm et al's No. 4 Jones, 2,310 ft. from SW and 990 ft. from SE Sec. 26, Blk. B-29, P.S.L. Sur. ..... Swabbing 2,546 ft.
T. P. Coal & Oil Co.'s No. 7 James, 1,320 ft. from SW and SE, Sec. 5, Blk. 34, H.&T.C. Sur. ..... Drlg. 640 ft.
Thompson's No. 1 Johnson, 2,310 ft. from SW and 330 ft. from NW, Sec. 9, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,351 ft. by tools.
Zoch et al's No. 1 Brillhart, 2,310 ft. from SE and SW, Sec. 13, Blk. 34, H.&T.C. Sur. ..... T.D. 2,512 ft.; show oil 2,469-85 ft.; production est. 35 bbls. oil, 500,000 ft. gas.

WINKLER COUNTY

Colonial Oil Co.'s No. 1 State vacancy, 330 ft. E and 103 ft. N of NW cor. Sec. 2, Blk. 77, P.S.L. Sur. ..... Rig up.
Richardson et al's Scarborough, 990 ft. from N and W Sec. 1, Blk. 77 ..... T.D. 2,998 ft.; flowing 172 bbls. per day.
Richardson et al's No. 1-B Scarborough, 990 ft. from S and 1,980 ft. from E, Sec. 18, Blk. 74, P.S.L. Sur. .... Drlg. 2,000 ft.
Richardson et al's No. 2 Scarborough, 1,980 ft. from N and 660 ft. from E. Sec. 1, Blk. 77, P.S.L. Sur. ..... S.D. 2,630 ft.

Wildcat Operations in Texas Panhandle

Week Ending January 9

CARSON COUNTY

Company, well, farm name, section and block— Remarks:

Gulf Prod. Co.'s No. 6 Cooper, 330 ft. from N and W SW, Sec. 4, Blk. 9, L&G.N. Sur. ..... S.D. 3,075 ft.; T.P. 3,035 ft.; to pump.
Panhandle Rfg. Co.'s No. 1 Kirby, 1,320 ft. N and W, Sec. 183, Blk. 3, L&G.N. Sur. ..... S.D. 650 ft.
Sinclair Prairie Oil Co.'s No. 1 Cooper, 330 ft. from S and W, Sec. 4, Blk. 9, L&G.N. Sur. ..... T.D. 3,115 ft; C.O.
Skelly Oil Co.'s No. 20 W. Schaffer, 1,320 ft. from S and E, Sec. 87, Blk. 4, L&G.N. Sur. ..... T.D. 3,113 ft; putting on pump.
Skelly Oil Co.'s No. 21 West Schaeffer, 1,320 ft. N and E, Sec. 68, Blk. 4, L&G.N. Sur. ..... Testing 3,150 ft; on pump.
Texas Interstate P. L. Co.'s No. 1 Burnett, 1,323 ft. N, 2,675 ft. E of N¼ Sec. 97, Blk. 5, L&G.N. Sur. ..... Bldg. rig.
Texoma Nat. Gas Co.'s No. 1-T Mineral Investing Corp., 1,323 ft. S, 1,326 ft. W, Sec. 60, Blk. 4, L&G.N. Sur... Drlg. 2,534 ft.
Union Pet. Co.'s No. 3 Cooper, 330 ft. N, 310 ft. E SE, Sec. 5, Blk. 9, L&G.N. Sur. ..... Cellar.

CHILDRESS COUNTY

Robertson's No. 1 Biddy, center S 26½ acres of N, Laughlin Sur. Blk. T ..... Rig.

COLLINGSWORTH COUNTY

Cochran Bros.' No. 1 Atkinson, 660 ft. from N and E, Sec. 26, Blk. 21, H.&G.N. Sur. ..... S.D. 300 ft.
Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur. ..... Drlg. 1,975 ft.
Kates et al's No. 1 Bell, 200 ft. from N, 2,310 ft. from W. Sec. 21, Blk. 102, H.&G.N. Sur. ..... S.D. 2,702 ft.; elevation 2,265 ft.

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersill, 330 ft. from N, 1,320 ft. from E. Sec. 40, Blk. B, John H. Stevens Sur. ..... Drlg. 4,616 ft.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3n-2e ..... S.D. 1,240 ft.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ..... S.D. 2,428 ft.
Baldridge et al's No. 1 Melton, 330 ft. from NE E half NE, Sec. 95, Blk. B-2, H.&G.N. Sur. ..... S.D. 3,075 ft.; T.P. 3,013 ft.; 40 bbls. daily.
Baldridge et al's No. 1 Catlin, 330 ft. S and E of E 80 of 158-ac. tract, Sec. 57, Blk. 3, L&G.N. Sur. ..... U.R. csg. 2,360 ft.
Baldridge O. Co.'s No. 1-B Melton, 330 ft. from N and E of SW, Sec. 95, Blk. B-2, H.&G.N. Sur. ..... S.D. 1,700 ft.
Bell O. & G. Co.'s No. 2 Tedesco Webb, 330 ft. S and W, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Fishing 1,730 ft.
Boyce et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur. ..... S.D. 2,554 ft.; shot. 50 qts.; no results.
Gordan Burch's No. 1 Laugham, 990 ft. S, 330 ft. E, Sec. 1, W½ NE, Sec. 1, Blk. B-2, H.&G.N. Sur. ..... Pipe parted 1,650 ft.
Cantone Oil Co.'s No. 2 Morse, 330 ft. from N, 330 ft. from E line, Blk. 9-A, Sec. 15, H.&G.N. Sur. ..... Location.
Christy's No. 1 Gething, 330 ft. from N and E, Sec. 13, Blk. A-9, H.&G.N. Sur. ..... S.D. 1,760 ft.
Sam Danner's No. 1 Cobb, 330 ft. S and W NE, Sec. 165, Blk. 5, L&G.N. Sur. ..... S.D. 550 ft.
Dolomite Prod. Co.'s No. 1 Sailor, 330 ft. N and E, Sec. 111, Blk. 2, L&G.N. Sur. ..... Pipe parted 320 ft.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S, 990 ft. from W, Sec. 9, Blk. 3, B.&B. Sur. ..... Rig.
Gray County Prod. Co.'s No. 1 Huselby, 330 ft. from S and W, E½ NW, Sec. 55, Blk. 25, H.&G.N. Sur. ..... S.D. 240 ft.
Gulf Oil Corp.'s No. 2 Catlin, 330 ft. S and W NW cor. SW, Sec. 40, but in Sec. 57, Blk. 3, L&G.N. Sur. ..... Drlg. 3,049 ft; S.O. 3,074-28 ft.
R. H. Locke's No. 1 McKnight, 1,320 ft. N and W, Sec. 178, Blk. B-2, H.&G.N. Sur. ..... Spudded.
Mazda-Shell Pet. Corp.'s No. 3 Combs-Worley, 330 ft. from N and W NE, Sec. 35, Blk. 3, L&G.N. Sur. ..... Flowed 27 bbls. per hr. with 13,000,000 ft. of gas; T.D. 3,033 ft.
Mazda-Shell's No. 4 Coombs-Worley, 660 ft. from N line, 660 ft. from E line, NE Sec. 35, Blk. 3, L&G. N. Sur. ..... Cellar.
Mid-Kansas O. & G. Co.'s No. 2 Webb, 990 ft. from N, 330 ft. from W NE, Sec. 61, Blk. 25, H.&G.N. Sur.... T.D. 2,600 ft; putting on pump to test.
Mid-Kansas O. & G. Co.'s No. 1 Gethings, 330 ft. S, 1,650 ft. W S½ S½, Sec. 13, Blk. A-19, H.&G.N. Sur... Drlg. 2,660 ft; T.P. 2,586 ft; 2 bbls. daily.
Ochiltree et al's No. 1 Hughey, 360 ft. S, 330 ft. E E half SE, Sec. 129, Blk. 3, L&G.N. Sur. ..... S.D. 2,640 ft.
Parton & Holt's No. 2 Morse, 330 ft. from W, 250 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... S.D. 2,635 ft.
Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... S.D. 2,582 ft.; flowed 8 bbls. per day.
Peterson & Holt's No. 1 Gething, 330 ft. from S and W of N½ SE Sec. 13, Blk. 9-A, H.&G.N. Sur. ..... Cellar.
Phillips Pet. Co.'s No. 1 Davidson, 330 ft. N and W, Sec. 36, Blk. B-2, H.&G.N. Sur. ..... Rigging up standard tools.
Pulse-Shell's No. 1 Brown, 290 ft. from N, 250 ft. from E of NW, Sec. 128, Blk. 3, L&G.N. Sur. ..... T.D. 3,263 ft.; T.P. 3,215 ft.; swabbed 230 bbls. in 14 hrs. after shot.
Quicksand Oil Co.'s No. 2 Chapman, 165 ft. N, 775 ft. from E of W 60 ac. of N½ NW, Sec. 69, Blk. 25, H.&G.N. Sur. ..... S.D. 2,075 ft.
Saunders et al's No. 2 Sullivan, 822 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, L&G.N. Sur. ..... Will plug back to 3,275 ft. and shoot.
Skelly Oil Co.'s No. 3 South Jackson, 330 ft. from N, 990 ft. from E. Sec. 88, Blk. B-2 ..... To skid rig; T.D. 2,970 ft.
Skelly Oil Co.'s No. 1 Gething, 990 ft. from S and W of Sec. 48, Blk. 9-A, H.&G.N. Sur. ..... Spudding.
Tedesco-Bell O. & G. Co.'s No. 3 Morse, 330 ft. from N and W N half SE, Sec. 1, Blk. 26, H.&G.N. Sur. ..... T.D. 2,590 ft; pumped 190 bbls. in 14 hrs.
Tedesco-Bell O. & G. Co.'s No. 4 Morse, 990 ft. N and W SE, Sec. 1, Blk. 26, H.&G.N. Sur. ..... S.D.
Texoma Nat. Gas Co.'s No. 1-G Abersold, 2,632 ft. N, 2,640 ft. W, Sec. 150, Blk. 3, L&G.N. Sur. ..... Rigging up standard tools.
The Texas Co.'s No. 2 Barrett, 1,022 ft. N, 300 ft. E NW, Sec. 130, Blk. 3, L&G.N. Sur. ..... T.D. 3,090 ft; standardizing.
The Texas Co.'s No. 1 Gethings, 330 ft. from S line, 330 ft. from W line, S½ Sec. 47, Blk. 9-A, H.&G.N. Sur... Drlg. 320 ft.
The Texas Co.'s No. 2 Frashier, 997 ft. N, 1,323 ft. from E, Sec. 162, Blk. 3, L&G.N. Sur. ..... T.D. 3,305 ft.; T.P. 3,240-67 ft.; putting on pump.
The Texas Co.'s No. 14 Williams, 330 ft. N, 370 ft. W, Sec. 7, Blk. 1, A.C.H.&B. ..... T.D. 2,756 ft.; T.P. 2,595 ft.; put on pump.
Paul Tharp's No. 1 Short, 330 ft. from N and W of Sec. 2, Blk. 1, H.&G.N. Sur. ..... Bldg. rig.
Sam Travis' No. 1 Back, 330 ft. S and E E half NE, Sec. 44, Blk. 25, H.&G.N. Sur. ..... Rig.
Trippiehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ..... T.D. 3,154 ft; S.L.M; swabbed 75 bbls. in 12 hrs.
Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ..... T.D. 2,675 ft.; plugged back to 2,285 ft.; to set csg.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E, G. S. Hood Sur. ..... S.D. 5,230 ft.

HUTCHINSON COUNTY

Alexander's No. 1 Cockrell, 330 ft. N and E of E 80 of S 160, Sec. 3, Blk. M-2, T.C. Sur. ..... Spudded 150 ft.
Baso's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. ..... T.D. 3,080 ft.; est. 5 or 10 bbls. may plug.
Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.
Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur.... S.D. 450 ft.
Huber Pet. Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ..... S.D. 2,918 ft.
Huber Pet. Co.'s No. 1 Works, 1,342 ft. from S and 1,813 ft. from E, Sec. 7, Blk. Y-2, T.T. Sur. ..... U.R. 10-in. csg. 1,534 ft.
Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 6, Blk. 1, B.&B. Sur. ..... S.D; pulled 5-in. csg; T.D. 3,146 ft.
Joe Murphy's No. 1 Watkins, 440 ft. from N and W of N half, Sec. 13, Blk. M-21 ..... Standardizing 2,680 ft.
Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ..... Shut down.
Stanolind O. & G. Co.'s No. 4-A Ware, 330 ft. S and W NE, Sec. 124, Blk. 4, L&G.N. Sur. ..... Drlg. 1,525 ft.
Steckel Prod. Co.'s No. 2-D Whittenburg, 1,065 ft. from S and W, Sec. 38, Blk. M-23, T.C. Sur. ..... T.D. 3,035 ft; to shoot; swabbed 200 bbls.
Texilvania Oil Co.'s No. 1 Hale, 330 ft. S, 280 ft. W, Sec. 16, Blk. 1, E.L.R.R. Sur. ..... S.D. 690 ft.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

Canadian River Gas Co.'s No. 2-A Perkins, 3,250 ft. S of most northerly NE cor, 200 ft. W of E line, Sec. 54, Blk. 47, H.&T.C. Sur. ..... Standardizing.
Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... S.D. 2,171 ft.
Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 360, Blk. 44, H.&T.C. Sur. ..... T.D. 3,525 ft; swabbing.
Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. .... S.D. 3,535 ft.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ..... S.D. 400 ft.
Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. S, G.C.&S.F. Sur. ..... Sidetrack 8-in. csg. to drill by with rotary.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... U.R. 6⅝-in. csg. 4,830 ft.

WHEELER COUNTY

Delaney et al's No. 1 Sitter, 330 ft. from S and W of E half NE, Sec. 33, Blk. 24 ..... Estimated 70,000,000 ft. gas; carrying 8¼-in. csg. 2,250 ft.
Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ..... T.D. 2,760 ft.; S.D. for pipe line connection.
B. M. Rhodes' No. 1 Noel, 330 ft. S and E NE, Sec. 54, Blk. 24, H.&G.N. Sur. ..... Material on ground.

Potential Tests Ordered in Oklahoma City Pool; Watching Semiwildcats in New Wentz Pool

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

The Oklahoma Corporation Commission ordered new potentials on all wells in the Oklahoma City Field, starting February 1. Increased activity is predicted for the Wentz Pool, in Noble County, where two extension tests are nearing the pay horizon. In the Oklahoma City Field 10 wells alleged to have been overproduced were granted permission to produce their December and January allowables. A Caddo County wildcat was spudding during the week.

The new order covering the Oklahoma City Field is quite lengthy and supplements the order issued on December 31, 1932. Rules for the taking of potential tests are included in the order. Rules for the taking of water tests on wells in the Oklahoma City Field showing the wells that are producing cut oil were also included. Under the existing order a marginal 100 bbls. a day is granted wells showing 10 per cent or more of water, this being in addition to the percentage allowable.

Allocation of the allowable production from the four zones in the Oklahoma City Field is more specifically defined, with a varied percentage for each zone. There is no change from the amounts of percentage allowed in the order of December 31.

Clarification of underproduction, especially as to where exemption has been granted for water allowable, is detailed in the new order. The recent hearings before the commission developed that underproduced wells were credited with 100 bbls. water exemption and that many were not able to make their underage. Such exemption was not the intention of the commission, and the status of all the wells has not yet been determined.

In the Wentz Pool

The Wentz Pool, in Noble County, is due to receive increased activity in the near future. Another location was announced during the week and two of the drilling tests are nearing the pay depth.

The Stanolind Oil & Gas Co., Amerada Petroleum Corp. and others' No. 1 Bolaw, C SW NW Section 16-20-2w, is a new location, a half mile east of the discovery well in the Wentz Pool. It is expected that other locations will be announced soon on some of the short-term leases in the area.

South of the discovery well, which was located in the SE cor. NW Section 17-20-2w, the Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Kolb, C NE NW Section 33-20-2w, was preparing to resume drilling operations after cementing the 8-inch casing at 4,933 feet. The top of the Viola lime was found at 4,905 feet.

The Shell Petroleum Corp. and others' No. 1 Jerome, C SW SW Section 8-20-2w, north of the discovery well, was drilling out the cement plug after the casing had been cemented at 5,085 feet, and a fishing job developed. The top of the Viola lime was found at 5,050 feet.

The Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s block adjoins Wentz and others' block on the southeast and south. The discovery well was drilled on a unitized block and will be developed orderly and slowly, consistent with the market demand for crude oil. The discovery well is allowed 50 bbls. a day of oil as a wildcat well and while taking a 10-day potential production test made approximately 22,000 bbls. of oil and will be shut down for nearly 400 days.

Ten wells that have been shut down in the Oklahoma City Field by the Corporation Commission because of alleged overproduction were permitted to take their December allowables and later on their January allowables, in an order signed by Commissioners E. R. Hughes and C. C. Childers, during the last week. Chairman Paul Walker, issued a dissenting opinion.

Companies and wells permitted to reopen include: Champlin Refining Co.'s No. 1 Naden, No. 1 McCalip and No. 3 Central; Blackwell Oil & Gas Co.'s No. 1 Sullivan; E. S. Holman's No. 1 Floral Hills; Oils, Inc.'s No. 1 Rose; Springrose Drilling Co.'s No. 1 O'Connor, and Marshall Oil Co.'s No. 1 Keller, No. 1 Butcher and No. 1 Buston.

The total allowable for these wells is approximately 51,000 bbls. (about 1,645 bbls. per day) for December and about the same for January. The reopening was permitted on the grounds that the State Supreme Court's opinion in the H. F. Wilcox Oil & Gas Co. proration case is not clear. Petition for a rehearing and clarification is before the court. After the court's decision all of these wells were released by the military.

The total overproduction of these wells is alleged to have been 3,000,000 bbls. Part of this large overproduction was due to the fact that the Federal court permitted the Champlin Refining Co. to produce its wells about 30 days under a bond.

Further evidence in the investigation of the oil proration conditions in the Oklahoma City Field, by the Corporation Commission, was postponed until January 18. This date was tentative since the commission wants to hear from the State Supreme Court on its petition for clarification and a rehearing on the Wilcox Oil & Gas Co. opinion, handed down a few weeks ago.

Before the case was recessed the commission had checked the records of practically all the companies with production in the Oklahoma City Field. The pipe line companies, refiners and the railways are yet to be heard from.

New Test in Caddo County

Denver Producing & Refining Co.'s No. 1 in the NW cor. SW, Section 34-10-10w, in the northern part of Caddo County, was spudding. The derrick was completed at the location some time ago but the moving in of tools was delayed on account of the bad weather.

The structure on which the test is being drilled is considered a large one and is estimated to be 20 miles long and 10 miles wide, and is on the edge of the Anadarko Basin. A seismograph was used in working out the structure.

Good Well in West Konawa

Another well was completed in the West Konawa Field in Pottawatomie County. This pool was opened in 1931, and is a unitized field. The new well, Gypsy Oil Co.'s No. 1 O'Connor, NW cor. SE, Section 25-6-4, flowed 679 bbls. of oil in 23½ hours on its first production test. The oil was found in the Simpson sand at 3,427-99 feet. It was shut in for 16 days under the present proration ruling.

The Standard Oil Co. of Kansas' No. 2 Samele, NW cor. SW NE, Section 30-7-8, found water in the Wilcox sand and may be abandoned. The total depth of the well was 4,224 feet. The test was located south of the production in the Fish Pool.

The West Asher or Wanette Pool in southern Pottawatomie County, may be extended a location by the Gypsy Oil Co.'s No. 1 Boyer, NW cor. SE SE, Section 27-6-3, which found a showing of oil in sand at 3,516-18 feet. The crew has landed and cemented the 8-inch casing at 3,464 feet.

Activity in West Holdenville

The West Holdenville Pool in Hughes County still leads the State in activity. On the east edge of the field, Milam and Capshaw's No. 1 Holmes, SE cor. SW, Section 11-7-8, found a new producing horizon. The well failed to find production in the Calvin sand at 1,197-1,228 feet and after drilling deeper found a new sand at 1,597-1,600 feet where it had 3,000,000 feet of gas a day. It was then drilled to 2,400-14 feet where a showing of oil was found.

The Blackwell Oil & Gas Co.'s No. 1 Jacobs, NE cor. NW, Section 15-7-8, is a new location.

The Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Palmer, NW cor., Section 36-6-7, north of the town of Sasakwa, in Seminole County, is a semiwildcat just announced. It is located about 3 miles south of the Sasakwa Field and about the same distance north of the western edge of the Allen Field. The well is being drilled on a block of about 600 acres which has been tested with the seismograph.

The north extension area to the East Earlsboro Pool, in Seminole County, is being revived by the announcement of two locations. Gypsy Oil Co.'s No. 1 Rentie, SW cor. SE SE, Section 8-9-6, was spudding. The R. H. Pierce Co.'s No. 2 Phillips, SE cor. SW SE, Section 8-9-6, is a location. This area was first opened by the R. H. Pierce Co.'s No. 1 Phillips, SW cor. SE, Section 8-9-6, in 1931.

In Southern Fields

In the Tatums Pool, in Carter County, in the southern part of the State, the Carter Oil Co.'s No. 3 Robb, SE cor. SW NW, Section 19-1s-2w, found oil in sand series at 1,661-1,870 feet, and has cemented the casing. This is the only well near the pay horizon in the pool.

In the area 5 miles south and 2 miles west of Duncan, G. L. Pace's No. 3 Houston, NE cor. SE SW, Section 2-2s-8w, Stephens County, was estimated at 20 bbls. a day from sand at 2,145-52 feet.

Oklahoma City Developments

The Oklahoma City Field closed the year by reducing the underproduction and amount of oil in lease storage. In December both the production and the pipe line shipments showed an increase over the previous month.

The oil production shows a gain of 90,198 bbls. over November for a total of 2,346,405 bbls. for the month of December, which is a daily average of 75,690 bbls. The daily allowable of the field during December was 73,510 bbls.

Pipe line shipments for December increased 374,635 bbls. over November, to a total of 2,476,265 bbls. Most of the increase in shipments was due to the Phillips Petroleum Co. making increased deliveries to its storage in the Earlsboro district of allowable crude.

As of December 1 the lease stocks in the field totaled 936,172 bbls. About half of this amount is needed for tank bottoms.

The new proration order of the Corporation Commission in the Oklahoma City Field, effective January 1, makes only a slight difference in the quantity of oil to be allowed the various wells. A survey of the order shows that the only wells to benefit are those of real large production and the real small ones.

Under the new order a minimum allowable of 30 bbls. a day is provided for wells and the operators have the choice of deciding whether they will take percentage allowables or the minimum amount. An allowable of 100 bbls. per well, plus percentage flow, is granted to wells making 10 per cent or more water, except in the Siliceous lime zone, which has been granted a wide open flow in order to fill the nominations for that zone.

On Wilcox sand wells the increase in the flow over the old system is not realized except on wells with a potential of 12,500 bbls. or more per day. Under the old system a 12,500-bbl. well had a percentage flow of 125 bbls. a day, plus the extra allowable of 25 bbls. a day, making a total of 150 bbls. a day. Under the new proration system the allowable is 150 bbls. a day. The smaller wells lose allowable because of the wiping out of the extra allowable of 25 bbls. a day, as is shown on a 2,500-bbl. well, which in December had 25 bbls. allowable on the percentage and 25 bbls. extra allowable for a total of 50 bbls. a day. Under the new plan the well gets an allowable of 30 bbls. a day, which is the minimum allowable.

The dividing line for wells producing from the Simpson sand zone is the 1,200-bbl. potential wells in this class which get 2.5 per cent of the potential production or 30 bbls. per day minimum. Under the old plan the same well would have had an allowable of 12 bbls. a day on the percentage basis, plus the extra allowable of 25 bbls. a day, or a total of 37 bbls. a day.

Detailed Order Issued January 7

The Corporation Commission prepared a more detailed order which was issued January 7 on the fixing of the water allowables, as all of the wells showing water will have to be retested and probably under the supervision of the district conservation agent. Until the new order was issued, the proration department was holding up the allowables on these wells.

The Plains Petroleum Co. and others' No. 1 Alexander, in Section 2-11-3w, in the north end of the Oklahoma City Field, have asked the commission for an adjusted potential on this well. If this is granted it would permit the owners to produce 150,000 bbls. of additional oil, as it would be retroactive to the completion of the well.

Officers of the company testified that the well was completed December 11, 1930, and flowed 6,006 bbls. in 2 hours and 10 minutes, giving the well a potential of 74,990 bbls. a day. Gas was gauged at 64,000,000 feet a day. On February 11, 1931, the well flowed 8,299 bbls. in four hours for a potential of 49,788 bbls. On April 1, 1931, it flowed 7,892 bbls. in four hours for a potential of 47,352 bbls. On November 5, 1931, it flowed 6,108 bbls. in four hours for a potential of 36,648 bbls. a day. On the last test the gas had declined to 35,000,000 feet a day. Recovery of oil from the well totals 309,835 bbls. to December 1, 1932.

One of the offset wells, the Capitol Producing & Refining Co.'s No. 1 Jones, completed on the same day was recently granted an adjusted potential, and this

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amounted to 114,000 bbls. of underproduction. This well has recovered a total of 302,591 bbls. to December 1. Another offset, the Morgan Petroleum Co.'s No. 1 Stout, was also granted a revised potential and 60,000 bbls. of underproduction.

Alfalfa County

Acre and others' No. 1 Acre, C SW NE Section 14-24-11w (old well drilled deeper), total depth 5,502 feet, rigging up.

Carter County

Magnolia Petroleum Co.'s No. 8 Tubbs, SE cor. NW NE SE Section 24-4s-3w, was fishing 1,200 feet.

Cotton County

Donald Brothers' No. 2 Wilson, NW cor. SW NW Section 6-2s-9w, is a rig.

Creek County

Ruckman and others' No. 1 Walter, NE cor. Section 24-17-11, was drilling at 500 feet. Johnson Oil & Refining Co.'s No. 3 Boyd, NE cor. SW Section 29-19-9, is a rig. Robinson and others' No. 1 Hinton, NE cor. Section 26-19-8, was abandoned at 2,510 feet. Tulsa Oil Co. and others' No. 3 Purcell, CEL NW NE Section 22-19-9, was completed for 60 bbls. from 2,743-46 feet. Hazelwood and others' No. 2 Rentie, NW cor. SE SE Section 32-19-9, was completed for 3,000,000 feet of gas a day from 2,374-2,403 feet. Johnson Oil & Refining Co.'s No. 1 Prince, SW cor. NW NE Section 3-18-8, was completed for 12 bbls. from 2,601-42 feet. Smith and others' No. 1 Grayson, NW cor. SE NE Section 3-18-8, was completed for 15 bbls. from 2,510-45 feet. Billingslea's No. 5 Warnarke, SW cor. SE SW SW Section 15-15-8, was abandoned at 2,910 feet. Herndon & Buell's No. 1 Rogers, SW cor. NE SE Section 34-16-9, was fishing at 1,400 feet.

Hughes County

Mainard and others' No. 1 Moore, SW cor. NW NE Section 22-7-8, is a location. Woffard and others' No. 1 Brown, SW cor. NE SE Section 21-7-8, is a rig.

Jefferson County

J. D. Wakefield and others' No. 1 Kelly, NW cor. SE Section 1-5s-8w, was spudding.

Kay County

Blouner and others' No. 1 Maple, NE cor. NW SE Section 20-27-4, is a location. McCowas and others' No. 1 Smith, C NW NE Section 6-28-1, was abandoned at 2,625 feet.

Logan County

Shell Petroleum Corp.'s No. 1 Strong, SE cor. SW Section 30-19-4w (old well drilled deeper), was cleaning out at 5,946 feet. J. S. Cosden Oil Co.'s No. 1 Gardner, NE cor. NW Section 31-19-4w (old well drilled deeper) was completed for 1,818 bbls. from 6,168-85 feet.

Lincoln County

Stanolind Oil & Gas Co.'s No. 2 Bowers, C NE SW Section 1-15-6, is a location. Elm Oil Co.'s No. 1 Wolf, CNL NE NW Section 12-15-6, is a rig.

McIntosh County

Harman Oil Co.'s No. 7 Porter, NE cor. SW SW Section 3-12-14, was drilling at 2,021 feet.

Muskogee County

J. L. Selby's No. 8 Brown, SE cor. SW NW Section 35-15-15, was abandoned at 1,558 feet. Foltz and others' No. 1 Beno, NE cor. NW NW SE Section 8-15-18, was completed for 50 bbls. from 1,583-1,600 feet.

Oklahoma County

Carter Oil Co.'s No. 1 Shawbell, C SW NE Section 1-12-4w, was abandoned at 7,141 feet. Slick and others' No. 4 Long, SW cor SE Section 15-11-3w, was completed for 433 bbls. in 24 hours from 6,497-6,540 feet. Phillips Petroleum Co.'s No. 1 Drew, C NW SE Section 22-11-3w, was completed for 1,538 bbls. in four hours from 6,444-6,550 feet.

Okmulgee County

W. Christian and others' No. 2 Flynn, NW cor. SE SE Section 20-14-12, was abandoned at 2,775 feet. Denton & Marshall's No. 3 Colbert, NW cor. SW NW Section 14-14-14, was completed for 8 bbls. from 1,780-86 feet. Castleman and others' No. 8 Thomas, SE cor. NW SE Section 23-14-14, was abandoned at 1,040 feet.

Pontotoc County

Benedum & Trees' No. 2 Morris, NW cor. SW Section 30-5-5, is a rig. Orr and Tilley's No. 1 Barnard, SW cor. NE Section 8-4-7, was drilling at 700 feet. Denver Producing & Refining Co.'s No. 2 Hickman, NE cor. SE SE Section 25-5-5, was completed for 160 bbls. from 2,430-2,563 feet. Dickinson's No. 2 Jackson, NW cor. SW SW Section 22-5-6, was completed for 25 bbls. from 1,645-1,725 feet; total depth, 1,745 feet.

Osage County

Lewis Production Co.'s No. 2, SW cor. NE SE Section 28-24-7, is a location. The Texas Company's No. 1, NW cor. SW Section 11-26-6, is a rig. Bay Oil Co.'s No. 1, SW cor. SE Section 25-24-7, was completed for 35 bbls. from 2,555-95 feet. Cooper and others' No. 1 well, SW cor. Section 25-21-10, was completed for 20 bbls. from 1,970-78 feet.

Tillman County

Gypsy Oil Co.'s No. 1 Pitcher, NW cor. Section 26-4s-15w, is a rig.

Tulsa County

A. C. Ice's No. 1 Wells, CNL SW SE Section 15-16-12, is a location. W. D. Dickman's No. 2 McIntosh, CNL SE SW Section 17-19-14, was spudding.

Wagoner County

Stansbury and others' No. 2 Drew, SW cor. NE NE Section 26-18-15, is a rig. Mack Drilling Co.'s No. 6 Richards, CEL SW NW Section 34-16-15, made 20 bbls. from 1,122-78 feet.

Wildcat Operations in Oklahoma

Northern Oklahoma

ATOKA COUNTY

Company, farm and location—	Remarks:
Independent Oil Co.'s No. 1 D. James, C NE NE Sec. 28-2-15	S.D. 75 ft.
Barton's No. 4 Miller, SE NW SE SW Sec. 26-1-14	S.D. 505 ft.
Hicks' No. 2 Morris, SE NE NW SE Sec. 5-1-15	Drlg. sand 175-383 ft., estimated 2 bbls.
George's No. 1 Reddin, SW NE SW Sec. 19-1-15	S.D. 640 ft.

BECKHAM COUNTY

Paitel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w	S.D. 1,385 ft.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-32-23w	S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 2,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w	S.D. 1,395 ft.

CADDO COUNTY

Denver P. & R. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w	Rig.
Abernathy & Brown's No. 2 Houston, Sec. 24-6-13w	S.D. 1,115 ft.

COAL COUNTY

Dodd & Burton's No. 1 Grigsby, NW SE NE Sec. 35-1-8	S.D. 1,100 ft.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8	S.D. 2,750 ft.

COMANCHE COUNTY

G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

CREEK COUNTY

O. O. Owen's No. 1 fee, NW cor. Sec. 23-15-7	Drlg. 2,650 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 12-14-14w	Location.

ELLIS COUNTY

Algers Pet. Co.'s No. 1 Roper, C SE NW Sec. 21-20-24w	S.D. 50 ft.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE Sec. 33-3-7w	S.O. 3,255-87 ft; S.D. 3,504 ft.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

GREER COUNTY

French's No. 1 Murphy, SW NW Sec. 23-7-21w	S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19	S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9	S.D. 200 ft.

HUGHES COUNTY

Nash-Redwine's No. 1 Url, C NE Sec. 10-5-11	Drlg. 500 ft.

KAY COUNTY

Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1	Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-3	S.D. 3,693 ft.

KIOWA COUNTY

Emenhiser et al's No. 1 Pace, SW cor. Sec. 3-4-17w	Location.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.)	T.D. 1,902 ft.; C.O.
McWhirter Bros.' No. 1 Kline, SE NW Sec. 5-6-16w	S.D. 830 ft.
Christian's No. 1 Jones, NE SE Sec. 8-7-18w	S.D. 1,610 ft.

LOGAN COUNTY

Eason Oil et al's No. 1 Gun Club, NW NE Sec. 10-16-4w	Drlg. 6,305 ft.

NOBLE COUNTY

Stanolind O. & G. Co. et al's No. 1 Kalb, C NE NW, Sec. 33-20-2w	Drlg. 4,935 ft.
Rollins et al's No. 1 Frank, SE SW Sec. 6-20-2w	Rig.

OKLAHOMA COUNTY

Carter Oil et al's No. 1 Shawbell, C SW NE Sec. 1-12-4w	Wilcox 7,110-41 ft; wtr; abd.
Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w	S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w	S.D. 5,515 ft.

PAWNEE COUNTY

G. N. Mainess and Westfield Drlg. Co.'s No. 1 Schildberg, NW SW NW Sec. 27-22-6	Drlg. 300 ft.
Deep Rock's No. 1 Crow, NE SE Sec. 26-23-6	Drlg. 1,180 ft.
Rookstool's No. 1 Wylie, NW NE SW Sec. 6-20-6	S.D. 1,950 ft.

PITTSBURG COUNTY

Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-3-14	S.D. 1,675 ft.

PONTOTOC COUNTY

Choctaw O. & G. Co.'s No. 1 Thompson, SW NE SW Sec. 1-1-7	Location.
Delaney's No. 1 Harden, NE SW Sec. 30-2-7	S.D. 875 ft.
Blackwell Oil & Gas Co.'s No. 1 Abbott, NW SW NE Sec. 14-4-6	Drlg. 1,300 ft.
Williams' No. 1 Krath, NE SE Sec. 33-3-4	S.D. 1,545 ft.
Edna Marie's No. 1 McWhirt, NE SE Sec. 11-2-6	S.D. 570 ft.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8	S.D. 3,096 ft.

POTTAWATOMIE COUNTY

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4.	Rig.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 23-12-24w	S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w	S.D. 3,420 ft.

SEMINOLE COUNTY

Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8	Sand 1,395-1,405 ft; wtr. 1,500 ft; U.R.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Montgomery, SW NW SE NW Sec. 28-9-17w	S.D. 1,004 ft.
Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 22-9-17w	Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w	Show oil 2,459-67 ft.; S.D. 2,787 ft.
Burns & Prince's No. 1 Dock, SW cor. Sec. 21-8-18	S.D. 2,160 ft.

Southern Oklahoma

ATOKA COUNTY

L. E. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10	S.D. 350 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 13-3s-10	S.D. 3,425 ft.

JEFFERSON COUNTY

G. W. Haines' No. 1 Woolsey, SE SW NE Sec. 4-3s-6w (O.W.D.D.)	C.O. 2,261 ft.

MARSHALL COUNTY

Lee Cross' No. 1 Hamlin, SE SW SW Sec. 26-6S-5	S.D. 752 ft.
Thomas' No. 1 Setliff, SW SE SE SW Sec. 36-5s-6	S.D. 645 ft.

McCURTAIN COUNTY

Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25	S.D. 2,778 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18	S.D. 2,096 ft.

STEPHENS COUNTY

Calif. Prod. & Oper. Co.'s No. 1 Garnett, SE NE NE Sec. 11-3s-6w	S.D. 325 ft.
Calif. Prod. & Oper. Co.'s No. 1 Suton, NE SE SW Sec. 12-3s-6w	Rig.
Gillette Bros.' No. 1 Cooley, NW SE NW Sec. 17-2s-4w	S.D. 1,850 ft.
George's No. 1 Ryan, NW SW NE Sec. 31-2s-15	S.D. 510 ft.

TILLMAN COUNTY

Emenhesser et al's No. 1 Pace, C SW Sec. 3-4S-17w	Location.

Small Gasser in New Geneva Field Extends the Shallow Gas Pay

CORNING, N. Y., Jan. 7.—The Geneva gas field, opened in Ontario County, New York, was extended 3½ miles northeast, and into Seneca County, when the W. T. Boyce Syndicate's No. 1 Bump opened up a flow of 500,000 feet of gas in Niagara lime at a depth of 862 feet. The well will be drilled deeper. This is the third and the smallest gas producer in the field. In the same field, but on the Ontario County side, the Geneva Natural Gas Co. on the O'Connor farm is deepening to the Medina sand, and Peterman and others were below 300 feet in No. 1 Mills. The Penn-Ohio Gas Co.'s No. 2 is drilling below 1,300 feet.

The Boyce Syndicate is drilling for gas north of the village of Clyde, Wayne County, New York.

A party composed of James Monroe of Corning, Glen National Bank of Watkins Glen and George A. Walter of the International Salt Corp. are drilling on No. 1 Charles Wentz on the Alpine anticline in Steuben County, New York, and are below 300 feet. The well is located at Moreland Station.

In Allegany County, New York, the Belmont Quadrangle Drilling Co.'s No. 1 Ballard-Hazzard in Wirt Township was reported abandoned at 4,650 feet after having drilled into salt water.

There are now 20 producing gas wells in the Rathbone Field in Steuben County, New York, with an average capacity of 500,000 feet per day. Four strings of tools are active in the field.

The Belmont Quadrangle Drilling Co., which opened the Dundee Field in Wayne County, plans to drill on the D. J. Rumsey farm in Tyrone Township, Schuyler County.

The Carpenter test on the J. Burdick farm in the Tyrone area is drilling below 1,260 feet.

On the Pennsylvania side of the field no completions have been reported for some time.

J. B. Reed, drilling on the Champlin farm in Hebron Township, Potter County, was reported to be close to the Onondaga lime gas pay. The crew was drilling below 4,525 feet. Updegraff and others' No. 1 Coyle was being cleaned out at 4,500 feet. This well should soon be at a conclusive depth.

Robert Hungiville's No. 1 Sturdevant in Hebron Township is shut down temporarily at 1,250 feet and Cunningham and others' test on the John Moran farm in Oswayo Township is temporarily shut down at 3,160 feet. No wells were reported actively drilling in Tioga County, Pennsylvania, in the past week. The Elkland Oil & Gas Co.'s No. 1 Van Dusen is shut down at 4,450 feet.

Well Extends Mabee Pool, McPherson County; An Interesting Townsite Unitized Project

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

The daily average production of oil in Kansas was estimated at 88,850 bbls. for the week ending January 7, a decline of 1,000 bbls. a day from the previous week. The estimated potential of the State is given as 190,000 bbls. a day.

An interesting wildcat test was announced in the past week to be drilled near the townsite of Wilson, Ellsworth County, by the Olson Oil Co., which has taken over the Sinclair Prairie Oil Co.'s block of about 15,000 acres, which surrounds the townsite of Wilson. The block has been core drilled and the most favorable looking location selected.

The company also has secured leases on lots in the townsite of Wilson and now has 33 community leases, made up of two-block leases and four-block leases, said to be unitized as to royalty interests. So far about 450 names have been secured on the leases for the town lots. The townsite of Wilson covers about 180 acres. The town has a population of 1,000. Some express the opinion that few towns in the State have been leased for oil and gas as solidly as Wilson.

The location for the test, No. 1 Brack, is in C SW SW Section 17-14-10w, in the northwestern part of the county. It is just outside the city limits on the east. The well will be drilled with rotary tools and every known producing horizon will be cored. Crude oil will be used as fuel for the boilers, which fuel will be secured from the Sinclair Prairie Oil Co.'s No. 1 Davisson, 13 miles to the southwest in Section 4-16-11w, Barton County, which is estimated at 250 bbls. a day and has been shut in since completion.

Extension of Mabee Pool

Lario Oil & Gas Co. and Shell Petroleum Corp.'s No. 1 Neufeldt, extended production in the Mabee Pool, in McPherson County, a half mile to the east, indicating that this pool will be an important producing area during the 1933 season.

The well is located in the SW cor. NW Section 34-21-3w, and started flowing wild from 1 foot in the Hunton lime topped at 3,474 feet. The pay formation was unexpectedly found as the well had been logging between 40 and 50 feet low where the Hunton lime was expected, compared to the logs of the producing wells to the west.

The well flowed 177 bbls. in two hours and was then shut in to erect additional tankage and secure a pipe line connection. The well was drilled only 1 foot into the sand to a total depth of 3,475 feet. It makes the sixth completed well in the pool. As a result of this well, a number of new locations are being made in the vicinity by the Lario Oil & Gas Co., Derby Oil Co., P. G. Reynolds and C. M. Hatch.

The Derby Oil Co. is moving in a rig for the west offset to the new well and the Lario Oil & Gas Co. has staked the location for the south offset. The Lario Oil & Gas Co. has also staked a location for a well in the SW cor. Section 27-21-3w, a half mile north of the new well. Reynolds & Hatch's No. 1 Krehbiel, NW cor. SE Section 27-21-3w, is located a mile northeast from the new producer.

The Derby Oil Co. lease on the Hamm land is 660 feet wide and extends a mile east and west. Since the completion of the Lario Oil & Gas Co.'s well, the Derby Oil Co. has six proven locations on the Hamm lease.

The other developments in McPherson County include, Derby Oil Co.'s No. 3 Neufeldt, SE cor. SW Section 21-21-3w, in the south extension area of the Voshell Pool, which found water in the Wilcox sand at 3,462-75 feet, and is shut down.

Stanolind Oil & Gas Co.'s No. 1 Zerger, NW cor. SE SE Section 16-21-3w, an old producer in the Voshell Pool, which has been producing from the Wilcox sand for some time, was also drilled deeper in the sand. The hole was drilled from 3,425 feet to 3,430 feet. No production test has been made but it is believed an increase in production has been realized as the hole filled with oil.

Drilling operations are expected to be resumed on the test of Carlson, Bailey and others, No. 1 Carlson, SE cor. Section 4-19-3w, McPherson County, about 2 miles north of the townsite of McPherson. The total depth of the hole is 2,558 feet, in shale. The test is expected to reach the chat in a few days.

In the northwestern part of Harvey County, Frank Hollow and others' No. 1 Schmidt, SW cor. NW Section 17-22-3w, a semiwildcat test about a mile north of production in the Hollow Pool, was attempting to drill past collapsed casing.

Two Greenwood County wells were dusters, Matthews & Rex' No. 4 Roser, SE cor. NE NE Section 7-24-12, in the Hamilton district, found shale at 1,685 feet, and there was no showing of oil. The Mississippi lime was found at 1,775 feet and the well was abandoned at 1,801 feet. Gardner and others' No. 1 Johnson, NE cor. SE NW Section 8-25-13, found only a small showing of oil and after water came into the hole it was abandoned at 1,634 feet.

Public Service Hearing

At the hearing of the Public Service Commission held in Wichita, January 5, no definite decision was made on the petitions considered. In the matter of the application of Frost, Lloyd, Study and others for a separation of the chat production and discovery rights on its No. 1 A. Martens, SE cor. Section 19-22-3w, in the Hollow Pool, in Harvey County, the commission indicated that on account of the numerous objections by other operators in the field it may discontinue granting any separation of the producing horizons in any of the different pools in the State.

The application of Tom Palmer and others for separation of the Wilcox sand production and discovery rights on its No. 1 A. Winn, SE cor. NW Section 7-20-1w, in the Ritz-Canton Pool, in McPherson County, was also taken under advisement.

In the matter of the complaint of J. D. Stevenson, owner of part of the royalty on the E half NW Section 27-16-10w, against the Vickers Petroleum Co., producer and purchaser of the oil from this property, on which the company is producing one well and is paying the royalty owners 77 cents per barrel less the freight charges of 22 cents per barrel including the gathering charges, was also taken under advisement.

The Public Service Commission held another meeting in Topeka January 11 to hear the nominations of the purchasing companies.

Derby's Injunction Suit

The first injunction suit against the Public Service Commission was secured by the Derby Oil Co. after the commission ordered the Mabee Pool, shut in on December 31. This was a temporary injunction. The Derby Oil Co. then sought a permanent injunction from the district court. This case came up for hearing January 5, at McPherson. Decision was withheld.

On December 31 the commission ordered all wells in the Mabee Pool, in McPherson County shut down and ordered a representative of the commission sent out to seal the wells. The Derby Oil Co. the next day secured a temporary injunction restraining the commission and has since been taking its pipe line nominations of 2,000 bbls. per day from the field.

The Public Service Commission issued an order in the matter of the application of the Dickey Oil Co. for a reduction of the minimum allowables in the Ritz-Canton Pool, in McPherson County, on the chat wells. The commission announces that the allowable production in this common source of supply has been so changed by reduced nominations of purchasers that ratable taking does not exist, causing underground waste and waste incident to the production of crude oil. The commission finds that the present condition is not satisfactory, but can be made more equitable by a reduction of minimum allowables to below 100 bbls. per well.

The commission therefore ordered that effective December 24, 1932, the minimum allowable on all the chat formation oil wells shall be 75 bbls. per well per day in the Ritz-Canton Field and that the difference so made by this change in minimum allowables shall be allocated to wells producing more than the minimum allowable on the basis of their percentage of potential, in order to more nearly establish ratable taking, to equalize water conditions and to prevent underground waste, surface waste and waste of gas energy. The commission also ordered that new schedules be prepared by the state umpire and that overages and shortages be adjusted from the date of December 24, and that this order remain in effect until further notice from the commission.

Barton County

Vickers Petroleum Co.'s No. 1 Kerr, NW cor. SE Section 15-16-12w, is a rig.

Cowley County

Roth & Farout's No. 1 Craig, SE cor. Section 2-32-3, was abandoned at 3,393 feet.

Ellis County

Stanolind Oil & Gas Co.'s No. 24 Austin, NE cor. SE NE Section 36-12-16w, old well drilling deeper, total depth 3,091 feet, plugged back to 3,070 feet and completed for 54 bbls.

Elk County

Denton and others' No. 1 Snay, NW cor. SW Section 28-28-12, was abandoned at 1,790 feet.

Greenwood County

Harwood Oil Co.'s No. 1 Brainard, NW cor. SW Section 33-22-10, is a location. Empire Oil & Refining Co.'s No. 4 Duby, NW cor. NE SW Section 14-22-11, old well drilling deeper, cleaning out at 1,960 feet. Rhoades and others' No. 1 Norton, SE cor. NE Section 22-22-12, is a machine. Central Petroleum Co.'s No. 1 Cannon, SE cor. NW SW Section 17-24-10, is a location. Boyle and others' No. 1 Frankhouser, NW cor. NE SW Section 17-24-10, is a location. Schull Drilling Co.'s No. 4 Allis, SW cor. SE NW Section 17-25-13, is a machine. Young and others' No. 2 Meyers, CEL NE SE Section 10-25-12, was completed for 15 bbls. from 1,774-82 feet. Ozenbauger and others' No. 1 Haber, SW cor. NW Section 6-25-11, was abandoned at 2,136 feet.

Harvey County

Shell Petroleum Corp.'s No. 2 Martens, SE cor. Section 19-22-3w, is a location (twin).

Kingman County

McMurray and others' No. 1 Walker, SE cor. NW SW Section 20-28-10w, was abandoned at 1,610 feet.

McPherson County

Youker and others' No. 2 Eaton, SW cor. NE Section 26-19-2w, was completed for 175 bbls. of oil a day from the chat at 2,920-70 feet. Derby Oil Co.'s No. 3 Hamm, SE cor. NE Section 33-21-3w, is a location. Lario Oil & Refining Co. and others' No. 1 Krehbiel, NW cor. SW Section 34-21-3w, is a location.

Woodson County

Theta Oil Co.'s No. 10 Schaffer, SW cor. NW SE Section 31-23-14, was completed for 1,565-82 feet.

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location— Remarks:

Sinclair Prairie Oil Co.'s No. 1 Turgeon, C NE NW, Sec. 3-16-12w ..... Drlg. 3,100 ft.
Rankin's No. 1 Sooey, C SW NE Sec. 34-18-12w ..... Drlg. 100 ft.
Doherty et al's No. 1 Roesler, SW NE Sec. 11-18-11w .... S.D. 1,975 ft.
Skelton Oil Co.'s No. 1 Ott, C SE SE Sec. 16-19-14w ..... Set liner 3,530-46 ft.; show oil; S.D. 3,605 ft.

COWLEY COUNTY

Roth & Farout's No. 1 Craig, SE cor., Sec. 2-32-3 ..... Drlg. 3,200 ft.

DICKINSON COUNTY

Severs' No. 1 Livingood (O.W.D.D.), SE NW Sec. 13-13-21. S.D. 4,900 ft.

ELLIS COUNTY

Phillips Pet. Co.'s No. 1 Unknown, C SW Sec. 32-11-17w .. Location.

ELLSWORTH COUNTY

Mid-Kansas Oil & Gas Co.'s No. 1 Kanak, NE SW Sec. 15-16-7w ..... Drlg. 1,800 ft.
Henry et al's No. 1 Arnsman, C SW SW Sec. 10-15-7w .. Rig.
Sinclair Prairie's No. 1 Unknown, C NE NE Sec. 27-15-3w ..... Drlg. 2,410 ft.
Buckford's No. 1 Burke, C NE SW Sec. 14-14-9w ..... S.D. 50 ft.
Gurley Bros. and Barnsdall's No. 1 Union Pacific, NW SW Sec. 7-14-7w ..... Drlg. 3,185 ft.
R. Gear et al's No. 1 Kroboth, SE NW Sec. 12-15-10w ... Drlg. 2,700 ft.

FINNEY COUNTY

L. F. Meyers' No. 1 Brown, S SW Sec. 16-25-34w ..... Completed, 5,000,000 ft. gas 2,635-2,742 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w ..... R.U.S.T. 3,615 ft.

(Continued on Page 62)

Miller County Still the Focal Point in Arkansas; Good Gas Test in Shelby County, Texas

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Jan. 9.—In new work Miller County, Arkansas, is still the hot spot, though none of the companies have gone in on a large scale. Ten of the 15 new locations reported this week were in this new territory. Opinion is that if it proves a real pool it will be of limited area. The geology, surface and proved by logs, were against production, but there is production on a commercial scale.

At a conference of operators with the Arkansas Conservation Commission it was established that wells shall be spaced not closer than 330 feet from corners or 660 feet from each other, with provisions for wells on small tracts in which cases the spacing may be closer. However, the one well to each 10 acres rule will be adhered to as closely as possible. Casing regulations require not less than 200 feet of surface string and 6-inch at around 2,900 feet.

Fifteen cars of crude from the Baker No. 1 Beck, Section 33-15-26, were shipped to Cedar Grove Refining Co. at Shreveport for 65 cents per barrel, delivered, freight rate 7 cents per 100 pounds, but before it could be run out the refinery burned so results of a refinery run are still undetermined.

NORTH LOUISIANA

United Gas Public Service Corp. completed No. 1 Stephenson-Kilpatrick, Section 1-19-6, Claiborne Parish, in the Sugar Creek deep gas field, making 40,000,000 feet at 4,340 feet. In Zwolle, Corporation Oil Co.'s No. 1 Eberts, NW NE Section 1-7-11, was dry and abandoned at 2,691 feet. Crescent Drilling Co.'s No. 1 Garner estate, NE NE Section 4-7-11, came in with 100 bbls. from 2,357 feet after deepening 20 feet from total depth on the first test. The Texas Company's No. 5 Stille, Section 33-8-11, failed to respond on account of salt water at 2,620 feet and is abandoned after pumping 25 bbls. fluid, 4 per cent oil. Pelican Natural Gas Co.'s No. 2 Buckley, Section 31-8-10, that made 100 bbls. initial from 2,502 feet and went dead, responded to acid treatment with 170 bbls.

New Louisiana locations were: Texana Oil Co.'s No. 1 Lawson, NW NE Section 28-16-9, Bienville Parish, a mile or so north of Ringgold and in the vicinity of Lake Bisteneau gas developed several years ago but lost on account of salt water. It began drilling December 28 and is down around 400-500 feet. In Bossier Parish Cryer Oil Co. has derrick up for No. 1 fee, SW SW Section 25-19-12, 12 miles northeast of Shreveport. H. H. Temple staked location for his second well in Grant Parish, No. 1 Guaranty State Bank, NW NW Section 9-5-1. G. W. Langley has derrick pattern on location for No. 1 Peavy-Wilson Lumber Co., a wildcat in Section 16-5-9, Sabine Parish, and in Zwolle territory Crescent Drilling Co. has derrick up for No. 1 Mabry, SE NW Section 2-7-11.

H. I. Morgan's deep test in Bellevue territory of Bossier Parish was still in the red beds at 3,874 feet. A. W. Phillips' No. 1 Oden, NW NW Section 4-18-13, 5 miles from Shreveport, in Bossier Parish, was waiting orders after a "Bossier show" of oil at 1,017 feet. In the Blanchard gas district of Caddo Parish, Louann Oil & Gas Co.'s No. 1 Currie and others, Section 32-19-16, made an estimated 5,000,000 feet of gas on drill stem test at 2,769 feet and will set 6-inch at 2,740 feet for completion. Calatex Oil & Gas Co. set a combination string of 4 and 6-inch at 2,848 feet on No. 1 Agurs, Section 9-16-16, and is drilling plug. E. T. Oakes did not make a test on No. 1 Bryant and others, a deep hole in Section 30-13-15, DeSoto Parish, at 4,240-46 feet, as planned but is coring at 4,497 feet. Jack Whitson's No. 1 Sanders, Section 19-11-13, had 4 feet of sand in broken shale at 2,750 feet, which made a show of oil and is shut down for casing to be set at 2,750 feet.

Gibson & Johnson's No. 2 Frost-Johnson, NW NE Section 15-9-13, Converse area of Sabine Parish, made an unsuccessful test at 1,901 feet and is shut down on account of high water. Sandfield Oil & Gas Co.'s No. 1 Bowman-Hicks, Section 26-9-13, is shut down for orders after bailing a show of oil at 2,210 feet. C. W. Smith cored 4 feet of sand at 3,436-40 feet on No. 1 Pattison, SE NW Section 33-10-11, and will make a drill stem test. Location is northwest of Marthaville where W. M. Coates and others have obtained promising showings but to date no production. Wong Hing, trustee, made a drill stem test on No. 1 Union Sawmill Co., SE SE Section 12-22-1e, Union Parish, got salt water, and will deepen. He had a sand from 2,426-36 feet.

ARKANSAS

Results of the Duluth-Arkansas' No. 1 H. E. Beck's drill stem test at 2,935 feet were not so good, only a small show of oil with a little gas. It is shut down. Steen Drilling Co.'s No. 1 Head, SW SW Section 20-15-26 (formerly Denis & Cubage) also was disappointing on drill stem test at 2,960 feet. It developed salt water but will make another test at around the same depth.

New locations in Miller County were: Baker & McMurray's No. 1 Andrew Rose, NE NW Section 4-16-26; J. D. Reynolds' No. 1 E. L. Beck, SW SE Section 35-15-26, and No. 1 B. F. Smith, SE SW Section 33-15-26. Jenkins Brothers' No. 2 Smith, SE SE Section 32-15-26; No. 3 Smith, SE SE Section 32-15-26, and No. 4 Smith, SE SE Section 32-15-26. Bob Manziel's No. 1 B. F. Smith, S half S half NE NE Section 32-15-26; No. 2 Smith, NE SE Section 32-15-26, and No. 3 S mith, NE SE Section 32-15-26. John DeGrazier's No. 1 Andrew Rose, NW NW Section 4-16-26.

McLeon and others abandoned No. 1 L. D. Neely, NE SW Section 23-15-16, Ouachita County, at 150 feet where it has been shut down for four months. Cox and others likewise abandoned No. 1 N. S. Goodwin, SW SW Section 3-16-16, Union County, at 140 feet. J. K. Wadley and others' No. 1 Moore, Section 35-19-17, Union County, one of two scheduled 4,500-foot holes at Junction City, is abandoned after testing dry at 3,200 feet.

Shelby County Test

General Minerals Corp.'s No. 1 Pickering in the D. S. Height Survey of Shelby County, Texas, a mile south of E. L. Chapman's gas well of a year ago, attracted attention to that part of the territory by making quite a show of gas in sand a 3,890 feet while coring. It was reported that it had 20 feet of sand but other wells in the vicinity have showed no such body of pay. However, it is as good a bet as any well that has been drilled in northeastern Shelby to date, and there have been a dozen or more wells, some of which were small producers, others gassers, and those that were failures having plenty of promise.

Daily Average Runs

Daily average runs from the field dropped 570 bbls., principally because of smaller shipments from Haynesville, though Caddo runs showed a sizeable increase. Louisiana runs totaled 29,210 bbls. and Arkansas 32,245 bbls., a decrease of 555 bbls. Shipments from the several pools were:

NORTH LOUISIANA

	Bbls.
Caddo light	4,905
Caddo heavy	1,800
Cotton Valley	665
DeSoto-Red River	1,800
Elm Grove	350
Haynesville	4,000
Homer	2,700
Holly	220
Pleasant Hill	310
Sarepta-Carterville	710
Urania	3,320
Zwolle	8,430
Total	29,210
Last week	29,225
Decrease	15

ARKANSAS

Champagnolle	1,550
El Dorado	2,625
Lisbon	450
Miller County	350
Nevada County	900
Smackover light	2,685
Smackover heavy	22,755
Stephens	380
Urbana	550
Total	32,245
Last week	32,800
Decrease	555
Both states	61,455
Last week	62,025
Decrease	570

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block—	Remarks:
T. J. Woodley, tr's No. 1 Thompson & Koltz, 2,640 ft. E, 200 ft. S, NW cor. Sec. 11-2n-5e	S.D. 2,250 ft.

BEAUREGARD PARISH

Trapp Oil Synd.'s No. 1 Long-Bell Lbr. Co., Sec. 26-2s-10.	Location.

BIENVILLE PARISH

M. H. Marr et al's No. 1 Caldwell, 450 ft. E, 150 ft. N, center Sec. 23-16-5	Derrick pattern.
R. S. Ross et al's No. 1 W. M. Beck, NE NE Sec. 3-18-8.	Rig up.
Texana Oil Co.'s No. 1 Lawson, 150 ft. W, 600 ft. S NE cor. NW NE Sec. 28-16-9	Began drlg. Dec. 28; drlg. 350 ft.

BOSSIER PARISH

Breazelle & Steckoll's No. 1 Nattin, C SW NE, Sec. 15-23-14	Set 6-in. 2,967 ft; swabbed; show oil and gas 3,018 ft; S.D.
Breazelle & Steckoll's No. 2 Nattin, 300 ft. S and W, NE cor. NW NE Sec. 22-22-14	Moving in rig.
Cryer Oil Co.'s No. 1 fee, 2,400 ft. N, 1,050 ft. E, SW cor. Sec. 25-19-12	Derrick.
A. W. Phillips, tr.'s No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW, Sec. 4-18-13	Cored 12-ft. sand showing oil; W. O. 1,017 ft.

CADDO PARISH

Bolinger & Walker's No. 1 Thompson, SE SW Sec. 16-22-14	Top Nacatoch 1,460 ft; (C.D.).

CLAIBORNE PARISH

Leue Oil Co.'s No. 1 Kiner, Sec. 2-21-7	Rigging up.
A. W. Phillips, Tr.'s No. 1 Jehu Knighton, 330 ft. N, 330 ft. E SW cor. NE SE, Sec. 31-20-7	Derrick.
United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5	Began drlg. Dec. 30; Cmtd. 12½-in. 267 ft.
Webster Oil Co.'s (was Robertson & Aurand) No. 1 Smith, 200 ft. S and E, NW cor. SE NE Sec. 8-21-7.	Drlg. shale 1,690 ft.

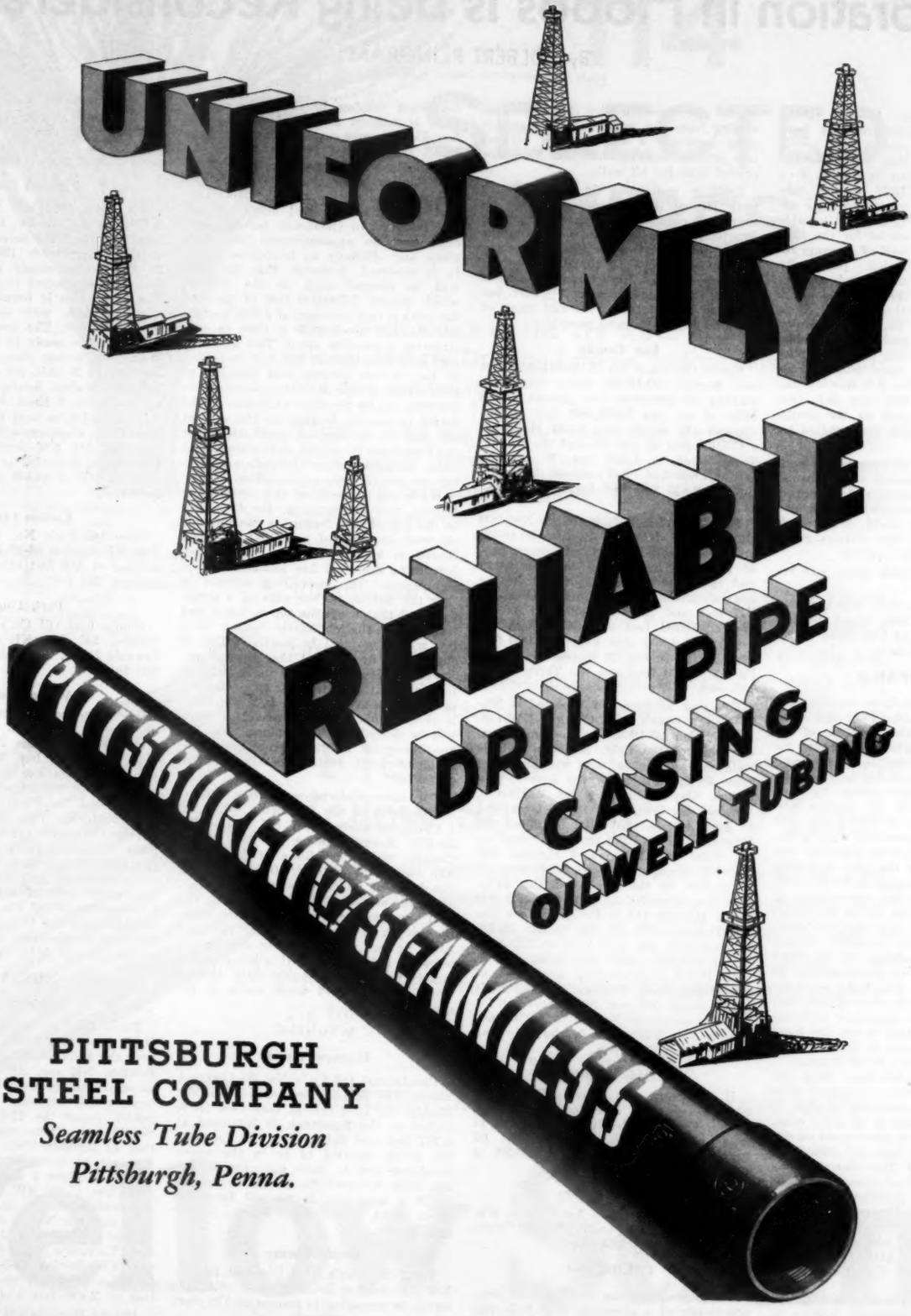
CONCORDIA PARISH

M. M. Stokes' No. 1 Pan-American Life Ins. Co., 7,300 ft. W, 300 ft. N, SE cor. irregular Sec. 18-9n-10e	Began Dec. 10; cmtd. 12-in. 160 ft; S.D. 814 ft.

DE SOTO PARISH

Baggett et al's No. 1 Moore, 330 ft. S, 330 ft. W NE cor. NW, Sec. 1-13-15	Rig.
Coker et al's No. 1 Boone, 300 ft. N and W, SE cor. SW NW Sec. 12-10-11	S.D. 60 ft.
Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor. Sec. 31-14-15	S.D. 2,470 ft.
M. B. Gill's No. 1 W. J. Hill, 330 ft. N, 330 ft. E center Sec. 4-10-13	Began drlg. Dec. 1; cmtd. 12½-in. 111 ft.
Honeycut O. & G. Co.'s No. 1 Porter, 423 ft. S, 414 ft. W, NE cor. NW NE Sec. 26-12-13	Arranging core 2,907 ft; did not set csg.
S. A. Guy's No. 1 Dowling, 469 ft. E, 382 ft. S, NW cor. NE Sec. 31-14-14	D.S. test 3,075 ft.; dry; W.O.
Mrs. A. L. Ibach, tr.'s No. 1 Rambin, 250 ft. S and E, NW cor. NE NE Sec. 32-11-11	S.D. fuel 710 ft.
E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW Sec. 30-13-15	Cored oolithic lime showing oil 4,240-60 ft; coring 4,497 ft.
DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-13-12	Partly rigged up and S. D.
Geo. L. Pace's No. 1 John Cole, 300 ft. N, 150 ft. E, SW cor. SE NE Sec. 11-11-11	Rig up.
G. C. Smith et al's No. 1 Wolluma, 330 ft. N and W, SE cor. Sec. 30-12-12	S.D. chalk 1,520 ft.
E. J. Stanberry's No. 1 Naborton O. & G. Co., Sec. 32-13-11	S.D. repairs 1,050 ft.
State Drlg. & Prod. Co.'s No. 1 Wemple, 330 ft. N and E, SW cor. NW SW Sec. 14-12-11	S.D. chalk 1,205 ft.
Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13	Swabbing tubing; show oil, water and gas 2,765 ft.
Warren & Craig's No. 1 J. A. Wagner, 150 ft. S and W from C, Sec. 5-13-14	Drlg. shale 750 ft.
Jack Whitson's No. 1 Sanders, 330 ft. N and E, SW cor. Sec. 19-11-13	Tested dry; top Blossom 2,625 ft.; S.D. for csg.; claim 4-ft. sand showing oil; T.D. 2,750 ft.

(Continued on Page 67)



PITTSBURGH
STEEL COMPANY
Seamless Tube Division
Pittsburgh, Penna.

Three New Tests Planned in Weld County, Colo.; Proration in Hobbs Is Being Reconsidered

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Jan. 9.—The Hobbs proration advisory committee has been considering proration problems and an agreement for 1933 to be submitted to state officials. Allowable outlet for the first half of January remains practically unchanged at 21,306 bbls. daily. Getty Oil Co.'s No. 5 McKinley gauged 10,368 bbls. for proration purposes and Humble Oil & Refining Co.'s No. 2-B Bowers was completed for 8,456 bbls. per day. One location, an outpost well on the northwestern side of the pool, was spotted by The Texas Company.

In Colorado, the Ramsey Petroleum Co.'s test in Weld County was deepened to 34 feet in the Dakota and water increased. It will be completed as a gas well and a gasoline plant constructed. Three other tests in this district probably will be drilled next spring.

Osage, Wyoming, crude price was reduced to 77 cents.

In Montana, one location was made in the Kevin-Sunburst Field. There were no completions. Drilling at Cut Bank is resuming after the holidays.

NEW MEXICO

The advisory committee representing operators in the Hobbs Pool has been considering the proration problems of the field generally preparatory to drawing up an agreement to be submitted to the state authorities. The agreement between the operators and the State expires by limitation on January 10. All parties concerned are said to be so thoroughly sold on the benefits of proration that a renewal of the agreement is expected, but some modifications of the plan may take place. The daily allowable outlet at present is determined on the nominations of the pipe line companies as to the quantity of oil they can take for the semimonthly periods. This quantity is prorated among the producers on the basis of 75 per cent for well potential and 25 per cent on acreage. One of the problems discussed is the modification of this formula as some of the operators have expressed the opinion this is not the most equitable basis that can be used.

The Hobbs potential as of January 1 was placed at 1,155,268 bbls. daily, an increase of 34,415 bbls. compared with December 16. This potential applies to 178 wells on 157 units of 40 acres each. The allowable outlet is determined on the basis of 33 bbls. per unit and .013447 of the average potential. The allowable outlet for the first half of January will be 21,306 bbls. per day, practically the same as in the last half of December. Nominations for the period were the Humble Pipe Line Co., 9,000 bbls.; Shell Pipe Line Co., 7,000 bbls.; Atlantic Pipe Line Co., 4,500 bbls.; and The Texas Company, 806 bbls.

The plan submitted several months ago by a committee of engineers looking to the unitization of the pool has not yet been adopted and the outlook for an agreement is not encouraging. Water continues to encroach gradually on the southwestern flank, but has been confined to that area and has not appeared in other parts of the field. Recent experiments showed that in some of the wells on the southwestern edge the water was coming from the top of the pay and in some instances a shutoff with packers has proven helpful, but this has not proved true for all wells.

Drilling operations in New Mexico were slowed down considerably on account of cold weather in some areas. Practically no progress was made in the northwestern part of the State where the thermometer stood 15 to 20 degrees below zero. In San Juan County the snow covered the ground to about 1½ feet, but this has packed to a foot and most of the highways are now passable.

Lea County

Getty Oil Co.'s No. 5 McKinley, NE cor. Section 30-18-38, which has been waiting for proration test, gauged 10,368 bbls. of oil and 8,665,000 feet of gas through the casing and 5,508 bbls. and 4,475,000 feet of gas through the tubing. Total depth is 4,228 feet. It cut the salt at 1,640-2,615 feet; topped the brown lime at 2,835 feet and topped the Terry at 4,115 feet.

Humble Oil & Refining Co.'s No. 2-B Bowers, SW NW SE Section 20-18-38, an outside well in the northeastern part of the field, nearly half a mile north and the same distance southeast of the nearest producers, was completed at 4,247 feet and gauged 8,456 bbls. of oil and 7,080,000 feet of gas through the casing and 4,860 bbls. and 4,405,000 feet through the tubing. It topped the brown lime at 2,920 feet and the Terry at 4,186 feet.

One new location was reported in The Texas Company's No. 4-C State, NW cor. NE Section 25-18-37, in the northwestern part of the field. It is an outside well, one-third of a mile west and the same distance north of the nearest producers. Gypsy Oil Co.'s No. 2 Hardin, SW SE SE Section 18-18-38, is drilling at 3,343 feet in anhydrite. It topped the Bowers sand at 3,268 feet, but found no oil. Tidal Oil Co.'s No. 4 Hardin, SW NE NE Section 19-18-38, is drilling at 1,130 feet in the red beds. The 12½-inch was cemented at 226 feet with 200 sacks. Humble Oil & Refining Co.'s No. 3-B Bowers, SW SE SE Section 20-18-38, cemented the 15½-inch at 250 feet, in the red beds, with 225 sacks.

In the Lovington area, northwest of the Hobbs Pool, Western Drilling Co.'s No. 1 State, NE cor. SE Section 13-17-36, was deepened 19 feet to 5,035 feet. Water rose 2,000 feet in the hole and it is again shut down.

Eddy County

R. Spearow and others' No. 1 McClellan, SW NW NE Section 22-22-23, Indian Creek, is drilling at 927 feet in lime. Flynn, Welch & Yates' No. 65 State, NE SE SE Section 30-18-28, is shut down at 900 feet.

De Baca County

Landowners Oil Co.'s No. 1 State, SW cor. NE Section 16-1s-27, Buffalo Creek, is shut down at 5,326 feet.

COLORADO

Drilling opreations in Colorado were practically at a standstill with only two wells reporting any progress. This was due principally to weather conditions and most of the active wells being shut down until spring.

Ramsey Petroleum Co.'s No. 1 St. Anthony, SW NE SE Section 15-7n-59, in the Buckingham-New Raymer district in Weld County, northeastern Colorado, continued drilling in the Dakota sand until it reached a total depth of 6,791 feet. Drilling was suspended approximately 34 feet in that horizon. The water continued to increase with depth until it was flowing better than 1,000 bbls. per day with practically no oil. Vice President R. M. Franks and other officials had returned to Oklahoma for the holidays and no announcement has been given out officially as to future plans. It is reported, however, that the hole will be plugged back to the Muddy, which gauged 6,500,000 feet of gas per day with a rock pressure of 1,635 pounds, and the gas saved with a view to constructing a gasoline plant. This same report says that another well will be drilled to the Muddy horizon and possibly to the Dakota. In the meantime negotiations are said to be pending with one of the major companies looking to the sale of gas and the making of applications for gas franchises in several of the towns and cities in northeastern Colorado and piping the gas to these communities.

While the outcome of this test in the Dakota was discouraging, the fact that in the top of this formation considerable oil was encountered and that the well flowed as high as 60 bbls. per day before being deepened has lost none of its significance. The prevailing opinion is that the well is on the edge of a structure and that when the top is found and tested that the optimistic feeling of a few weeks ago will be justified. This is emphasized by the fact that several major companies are negotiating additional tests and within a week or two some announcements are expected. It is practically certain that at least three more wells will be drilled in that general area, but announcement of the plans are being withheld until certain details can be completed.

The other Colorado operation reporting progress is the California Co.'s No. 1 California-Raven, NW SE Section 30-2n-102, Rangely Dome, in Rio Blanco County, which is drilling at 6,714 feet. The hole is more than 1,000 feet below the depth at which it began showing oil above the objective Weber formation. The well is enclosed and no information other than depth is being released by the company. It has generally been understood, however, that as this well is being drilled largely to obtain geological data, that it would be continued until water is encountered.

WYOMING

Converse County

Continental Oil Co.'s No. 30 Glenrock Sheep, SW SE SE Section 4-33-76, Big Muddy, the first test in that field to be drilled to the Sundance, is bottomed at 4,767 feet and fishing for wire line and bit. It is reported to be in the upper Sundance and to have encountered water. John Ackard's No. 1, SE Section 8-32-72, a deep test in the old Brenning Basin Field, is shut down for the winter at 500 feet.

Platte County

T. R. Oberman's No. 1 Diamond Ranch, NW SE Section 30-21-68, west of Chugwater, is preparing to resume at 170 feet.

Goshen County

The Phillips Petroleum Co. has suspended operations with its core drill north and south of Lingle until spring. Seven holes have been drilled to an average depth of 1,000 feet to work out the structure. These are widely scattered and are reported to be too scanty to justify conclusions regarding so large an area. The logs are being checked by the geological staff to determine plans for additional core drilling next summer.

Fremont County

Big Four Oil Co.'s No. 5 Enos, SE NW Section 27-3n-1w, Pilot Butte Field, reported completed recently as a 25-bbl. well, actually made 130 bbls. the first 24 hours from sandy shale at 869-884 feet and is expected to settle to 25 bbls. The production is found in a formation that correlates with the Shannon sand in Salt Creek. The company has completed and is ready to put in operation a small skimming plant with a charging capacity of 25 bbls. per day. It will market the product locally. Kinney-Coastal Oil Co.'s No. 3 Enos, SE cor. NW Section 22-3n-1w, is shut down at 800 feet. The Texas Company's No. 2 State-Ridgway, SE SW SW Section 36-34-95, Alkali Butte, is coring at 4,541 feet. This is the depth at which the Dakota is expected.

Carbon County

Ohio Oil Co.'s No. 1 Kanawha, SW NW NE Section 34-23-79, Allen Lake, is drilling at 550 feet after cementing 8¼-inch at 293 feet.

Park County

Continental Oil Co.'s No. 1 Northern Pacific, SE SW NE Section 23-58-98, Frannie Dome, is running 8⅝-inch at 3,309 feet.

Weston County

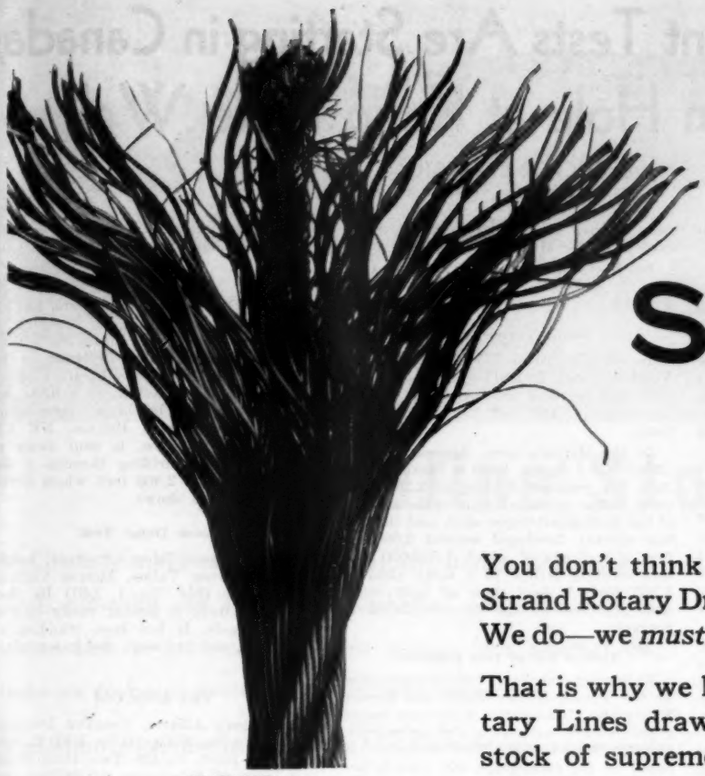
The only operation in the Osage Field at present is General Oil Co.'s No. 1, NE NW SE Section 22-46-64, which is ready to spud, but delayed by severe weather. Arro Oil & Refining Co. is paying 77 cents per barrel for Osage crude in line with the 40 gravity crude in the Mid-Continent. The small refiners are paying the same price. The Arro company no longer posts a field price but the amount named is commonly offered on a contract basis. That company is taking the bulk of the production. The Chadron-Osage Oil Co. has filled a 10,000-bbl. tank and is building another and planning to construct others to store its production for better prices.

MONTANA

Glacier County

There were no completions in the Cut Bank Field and little progress reported over the holidays. R. C. Tarrant's No. 1 Britton, NE cor. SE Section 14-34-6w, an offset on the west to his No. 1 Haglund, which averaged 80 bbls. per day initial, found the Haglund sand at 2,839-96 feet. There was a little saturation at 2,866-96 feet, but the showing was not as favorable as in the offset. It will be given a shot. Tarrant's No. 1 McLellan, C SE SW Section 7-34-5w, is standardizing at a total depth of 1,465 feet, and his No. 1 Miller, C NE NE Section 24-34-6w, is shut down at 1,250 feet. Tarrant's No. 1 Haglund, Sr., SW cor. NW Section 13-34-6w, a north offset to a producer, ran 5⅞-inch to bottom at 2,836 feet and shut down.

Dakota-Montana Oil Co.'s No. 1 Drumheller, SW SE NE Section 3-34-6w, is drilling at 1,645 feet in the Colorado shale. Alberta-Pacific Oil Co.'s No. 1 Kiesel, NE cor. NW Section 11-34-6w, is drilling at 2,212 feet, and its No. 1 Matson, NE SE NW Section 14-34-6w, is bottomed at 2,217 feet and fishing



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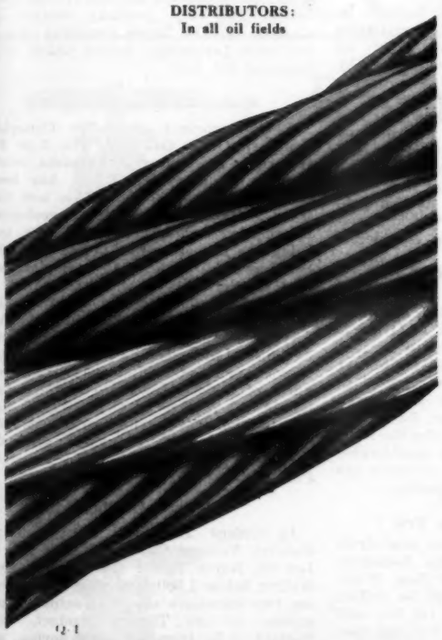

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for wire line and tools. One string of tools is out of the hole. B. E. Adams and others' No. 1 Britton, SE cor. NE Section 14-34-6w, while trying to pull lost tools, pulled in the derrick. This has been repaired and sidetracking is in progress. L. R. Hannah and others' No. 1 Britton, SE SW SE Section 14-34-6w, cemented 12½-inch at 597 feet; ran 10-inch to 2,400 feet and is drilling at 2,765 feet in the Kootenai. Santa Rita Oil & Gas Co.'s No. 1 Jackson, C NW SW Section 25-34-6w, is rigged and ready to spud. Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, is shut down after spudding.

Teton County

F. Hawley and others' No. 1 Porter, SW NW NW Section 35-27-5w, Pendroy district, is shut down at 305 feet while checking leases.

Hill County

Fargo Oil & Gas Co.'s No. 1 Morris, C SW NW Section 29-37-15e, Signal Butte, is shut down for the winter at 1,020 feet and will run the 5-⅛-inch before resuming.

Liberty County

John Wild and others' No. 1 Mahoney, C SW SE Section 23-37-4e, Whitlash district, is drilling at 500 feet.

Carbon County

Ohio Oil Co.'s No. 11 Bowman, C SE NE Section 4-7s-21, Dry Creek, after plugging off bottom water in the Lakota at 5,928-94 feet, is swabbing to test. It is estimated at 500 to 600 bbls. per day. Sante company's No. 9 Souders, C NE SW Section 2-7s-21, is drilling at 4,313 feet in shale above the Frontier.

Carbon Oil & Gas Co.'s No. 1 McMinn, NW SW SW Section 7-7s-22, southeastern edge of the field, is bottomed at 5,557 feet and running packer to shut off water in the second bench of the Dakota. It probably will make a small producer.

The U. S. Geological Survey has granted permission to drill on the SE Section 34-6s-21, on the Crofts permit, north of the Dry Creek producers. The Dry Creek Oil Co. was formed the past fall to drill the lease. It is not known whether it will be a deep test or a validating hole.

Toole County

In the Kevin-Sunburst Field, the Edmonton-Montana Syndicate's No. 1 Adams, NW cor. SE Section 18-34-1w, is a location. Missoula-Kevin Oil Co.'s No. 1 Davidson, SE cor. NE Section 28-35-3w, is shut down at 1,620 feet, and Myers & Johnson's No. 1 Rogers, SW SE NE Section 19-34-1w, is drilling at 1,520 feet in lime. Munger-Tiefor's No. 6 Kaston, NE NE Section 27-35-1w, is shut down at 1,200 feet.

In the Barthelote district, the Liquid Gold Oil Co.'s No. 1 Roberts, C NW NE Section 25-36-1e, recemented 5-⅛-inch at 2,644 feet.

WASHINGTON

Ohio Oil Co.'s No. 1-A Robinson, Section 5-17-9w, Gray's Harbor County, is fishing for parted tubing after plugging back from 6,600 feet to 4,278 feet to test a gas showing.

Management of Ajax Taken By Oklahoma Pipe Line

The Oklahoma Pipe Line Co. announces that it has taken over the management of the Ajax Pipe Line Co. with E. H. Leroux, president of the Oklahoma Pipe Line Co., in charge. The main offices of the Ajax Pipe Line Co. will be moved to Muskogee, Okla., with a branch office of the Ajax Pipe Line Co. located at Springfield, Mo.

The Ajax Pipe Line Co. is a twin 10-inch pipe line running from the Glenn Pool, near Keifer, in Creek County, Oklahoma, to East St. Louis, Ill. This pipe line connects with the Oklahoma Pipe Line Co.'s lines at Glenn Pool.

Three Important Tests Are Starting in Canada; Oil Rises in Hole at Keho Lake Well

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Jan. 7.—Official figures of Alberta oil production for November show a total from all fields of 64,990 bbls. This compares with 66,841 bbls. in October, a slight decrease, but there is a slight increase in average daily production from 2,146 to 2,166 bbls.

Of the November total, 60,449 bbls. represented Turner Valley naphtha and 1,491 bbls. light crude. The Red Coulee Field contributed 3,050 bbls. of light crude, an increase of 676 bbls. Wainwright, which in October delivered 681 bbls. of heavy crude, showed no figures for November.

Of the gross Turner Valley production, about 3⅛ per cent was lost through evaporation and refinery deductions. The net production exceeded sales by approximately 2,900 bbls., increasing storage to 16,925 bbls. largely due to a seasonal decline in demand for unrefined naphtha, sales direct at the well being about 5,500 bbls. less.

Hunter Valley Test

An important new test is being started by the Hunter Valley Oil Co., headed by Campbell M. Hunter, the British geologist, in the forest reserve area west of Olds. Location has been made in Township 31-10w5, some distance west of Cartier-Majestic's No. 1 in LSD 3, Section 36-31-7w5. Drilling equipment is being hauled to the site of Hunter Valley's No. 1, and the test should spud in some time in February.

The Hunter Valley Oil Co. was organized several years ago by Campbell Hunter to develop leases covering some 27,000 acres in the forest reserve area, about 68 miles west of Olds, which covers two structures. Drilling will start in the lower Benton. Eighteen miles of pack trail had to be improved and 10 miles of new road built to get the drilling equipment to the site. The company has purchased its own outfit.

New Tests Start

In the far south end of South Turner Valley area, Union Drilling Co.'s No. 1, LSD 8, Section 21-18-2w5, has spudded in. Plans have been made to drill through the winter. It is a mile south of the most southerly test.

Farther north, W. Fay Becker and associates' No. 2 Anaconda, Section 28-18-2w5, has spudded in a test on the Dalhousie sand. Cable tools are being used. Location is midway between Merland's No. 1 and Sterling Pacific's No. 2, both good producers in the deep lime, the former also having good shows in the Dalhousie. W. Fay Becker and associates last year completed Hylo Oils' No. 1.

McLeod Deep Test

In the Central Turner Valley, McLeod Oil Co.'s No. 4, LSD 16, Section 1-20-3w5, has been shut down at 7,555 feet, after drilling 955 feet below the previous depth record for the Turner Valley Field, and for Canada. The drillers have been working in zero and subzero weather with the machinery covered with frost, and it was decided to shut down till the worst of the winter is over. The well is in good shape for further deep drilling, but it is likely a number of small shows in horizons below the Madison lime will be tested before deeper drilling. The test has been carried some 2,000 feet below the bottom of the Madison.

In North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is making new hole below 3,965 feet.

South Turner Valley

In South Turner Valley, Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, has resumed drilling, after cementing around 5,300 feet to sidetrack lost tools.

In the Mercury area, Associated Royalties' No. 1 Spray, LSD 9, Section 5-19-2w5, has resumed drilling at 3,295 feet, close to the potential light crude horizon of the McDougall-Segur sand, and the test has already developed around 3,000,000 feet of wet gas of which 1,500,000 feet was recently struck in a stray sand at 3,265 feet. A good show of light crude was reported at the Benton-Blairmore contact.

Turner Valley Gas Reserves

Following months of testing operations in the Turner Valley Field, the Turner Valley Gas Conservation Board has issued a preliminary estimate of the gas reserve, 599,929,248,000 feet. The estimate is based on the assumption 400 pounds per square inch is the lowest pressure at which the gas in Turner Valley can be sold without repressuring. The average pressure per acre of the whole field on November 24, as obtained by using a pressure contour map of the field, was 1,288 pounds.

The estimate of the reserves made by the board compares with estimates quoted last year in a general report on the proposed pooling agreement made by F. P. Fisher, technical advisor to the government. The Fisher estimate placed the reserve between 700,000,000,000 and 800,000,000,000 feet. If the present flow of 200,000,000 feet a day were to continue the life of the field would be about nine years. The actual rate of flow to be allowed will not be decided until a public hearing this month at which a voluntary pooling plan will be considered.

Keho Lake Test

In the Keho Lake area northwest of Lethbridge, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, is testing production following a shot in the main oil horizon of the Benton at 3,770 feet. This horizon was reported to have shown 32.6 Be. crude which was cased off while testing the lime; the hole being later plugged back for the shot. After the shot oil rose for a considerable distance in the hole, but no estimate has been made of potential production.

British Columbia Gas Test

In British Columbia, some new drilling is likely this year in the Boundary Bay area, directly south of New Westminster. A test for gas will be drilled near the old Boundary Bay Oil Co. well southeast of Ladner. The Natural Gas Development Corp., Ltd., has been organized to handle the test, the principal backers being A. Wells Gray, New Westminster; A. D. Paterson, Ladner; E. O. F. James, George W. Mitchell, William M. Silcock, Vancouver; and Col. H. T. Goodland, Victoria. E. S. Estlin of Vancouver will be engineer in charge of the work.

Location will be fairly close to Boundary Bay Oil Co.'s No. 1, which was drilled about 10 years ago, when there was widespread testing of this area. The Boundary Bay well got a flow of gas at 2,300 feet, but the company was drilling for oil, so the gas was cased off and the test continued to 4,117 feet when operations were shut down. The new company holds leases on about 5,000 acres in the Boundary Bay district.

Cut Bank Field

On the Montana side, Alberta Pacific Consolidated Oils, Ltd., of Calgary is drilling below 2,217 feet on its No. 1 Matson, S half NW Section 14-34-6w, in the Cut Bank Field. Alberta Pacific's No. 1 Kiesel, Section 11-34-6w, is drilling below 1,735 feet. The latest completion, Roy Tarrant's No. 1 Britton, NE NE SE Section 14-34-6w, is shut down at 2,916 feet after drilling through a 30-foot stand below 2,866 feet, which developed only small shows.

Moose Dome Test

On the Moose Dome structure, northwest of Turner Valley, Herron Cartage Co.'s Moose Oils' No. 1, LSD 16, Section 29-22-6w5, is getting ready to fish for lost tools. It has been standing at 2,835 feet, and has some wet gas production.

Two Hills Test

In eastern Alberta, Frontier Development Co.'s No. 1 Two Hills, LSD 2, Section 1-55-13w4, on the Two Hills structure east of Edmonton, is drilling out cement after setting casing on top of a promising oil sand at 1,887 feet. The Texas Company of Canada recently acquired a half interest in the well and acreage; and Frank Rohwer of the Frontier company and A. J. Childerhose of The Texas Company are supervising operations. The only previous venture in Canada by The Texas Company was a test near Lethbridge, drilled jointly with Imperial Oil, Ltd.

Quebec Drilling Operations

In the province of Quebec, Canadian Seaboard Oil & Gas Co.'s No. 1 at St. Gerard in the county of Yamaska, south of the St. Lawrence River, has been abandoned at 6,160 feet. This test finished a dry hole. Considerable geological information has been secured, the test being the deepest yet undertaken in the St. Lawrence Valley. It is understood that on the basis of this information a new test, to be drilled jointly by the Canadian Seaboard Oil Co. and the Alberta Gas & Fuel Co. will be drilled south of the St. Lawrence at a point somewhere between Sorel and Nicolet. In the area north of the St. Lawrence and the Lanoraie Oil & Gas Syndicate, Ltd., has been planning to drill further shallow tests for gas. This company previously got a small gas production in Lanoraie Parish, about 10 miles from Joliette.

Ontario Drilling

In Orford Township, Kent County, Ontario, Vacuum Gas & Oil Co.'s No. 4, Lot 53, North Talbot Road, is reported drilling below 1,580 feet after encountering two successive shows of sulphur gas, similar to the Tilbury product, and thought to be from the same horizon as production in the Tilbury Field. The gas flows aggregate between 10,000 and 15,000 feet a day, and the test is being deepened for larger production.

In Raleigh Township, Kent County, F. H. Stover & Son's No. 1, E half N half, Earl Flook farm, Lot 19, Concession 8, is cleaning out and deepening below 1,638 feet. It is reported that acid treatment will be utilized to increase production. Producers Gas Corp.'s No. 1, Cecil Chinnick farm, Lot 17, Concession 8, is drilling.

In the Dawn Field, Lambton County, Union Gas Co.'s No. 65, Lot 24, Concession 2, Dawn Township, is drilling in the salt below 1,550 feet.

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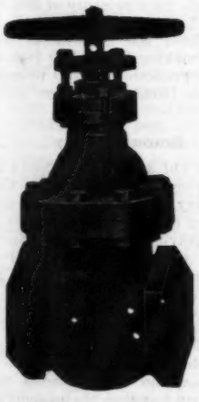

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Conroe District Continues to Set Pace for Gulf; New Development Offsets Other Fields

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Jan. 9.—The Conroe Field continued to set the pace for the Gulf Coast the past week, and the increasing amount of new development there more than offset general slackening of operations in other fields and in wildcatting over the district. Within the last several weeks there has been a very conspicuous decline in the number of wildcat operations but at Conroe the work of proving up the territory is being carried on at a greater rate than ever before with activity spreading out beyond the constantly expanding limits of the field.

A dozen additional good wells were brought in at Conroe during the week and as this is written there are 17 other wells which either are in process of completion or are standing cemented on the pay sand and should be brought in within the next few days. As many new locations were made and a number of additional rigs were moved into the area. The extension of the field has changed the picture of development and while at first it was thought operations would be confined to a few large companies the play now is taking in a large number of smaller operators as well.

Possible Extension

Of particular importance in respect to a possible extension of the field southwest to San Jacinto River, a distance of more than 2 miles from the present productive limits, is the location made during the week by Strake Petroleum, Inc., on the Elizabeth Moody 726-acre tract in the C. B. Stewart Survey. The exact location is 1,400 feet from the south line and 467 feet from the east line of the tract. Strake Petroleum, Inc., of which George W. Strake, discoverer of the Conroe Field, is the head, has just completed a trade for the tract from Hamill & Smith, owners of the lease, who retain a working interest in it. The latter operators acquired the lease early in the development of Conroe and since then, as the play extended southeastward instead of southwestward from the discovery area, the lease has generally been considered out of the picture. More recently, with extensions of production southwestward, attention again has been turned to the proving up of additional acreage in that direction.

Farther southwest on the San Jacinto River, several shallow tests were drilled a number of years ago and some showings were reported. Beyond that and to the Houston-Conroe highway there is considerable open acreage. Early last month a little interest was centered there when several independents tried to acquire acreage, which is cut up into small tracts. In the majority of instances owners held out for prices higher than those offered. Most of the acreage between the new test and the field is owned by Strake Petroleum, Inc., this acreage being a part of the original Strake block of more than 8,000 acres.

The main part of the field now is being spotted out rapidly with wells and drilling operations. Four new wells have been started in the vicinity of South Gulf Oil Corp.'s Granger well which recently extended the south end of the field about a mile east. The south extension district, opened a couple of months ago by Gulf Coast Drilling & Production Co.'s No. 1 Keystone Mills in the A. S. James Survey, now is definitely linked with the original part of the field by the series of new wells which have been completed between it and the main field and in addition more than a dozen rigs now are running to prove up the territory as the acreage is pretty well cut up into smaller tracts divided among a number of different operators.

Present Production

Under the new proration orders which went into effect the first of this January, daily production of Conroe is restricted to 18,500 bbls., a reduction of 1,500 bbls. daily from the allowable of December. With this allowable during the present four-day period, production of individual wells on 20-acre units are cut to less than 180 bbls. daily with wells on smaller tracts curtailed proportionately. Production of the field at present is well above the allowable figure as a result of an injunction held by the Alpha Oil Co. restraining the railroad commission from enforcing proration restrictions against that company's wells, of which there are three. The majority of wells in the field, however, are being held within the allowable.

Completions Elsewhere

Outside of Conroe, there were few completions on the coast and for the most part there was little of especial interest in drilling operations. The majority of the score or more of "hot" wildcats which were drilling a couple of months ago have gradually been eliminated by abandonment and locations for new tests on wildcat blocks have not been sufficient to offset those failures. Two additional important wildcats were added to the list of failures the past week with the abandonment of Gulf Production Co.'s No. 1-B H. P. Lockwood, Wiley Martin Survey 9, first test on a new geophysical block in western Brazoria County, and Cullen & West's No. 1 Hawes, G. W. Singleton Survey, on another new geophysical prospect at Hungeford, Wharton County. The former was dry in shale at 7,404 feet and the latter at 6,686 feet.

The Cullen & West test is the second abandonment by these operators at Hungeford within two weeks, the first being No. 1 Hudgins, Alex Jackson Survey. Location of these wildcats, although supposedly on separate geophysical prospects, were within a couple of miles of each other. It is understood another test may be drilled, this to be located between the two dry holes as it is possible the two failures were located on opposite sides of a common deeply seated salt dome.

Harris County

Several lease plays of more or less local extent were under way during the week. One of these was in the Tom Ball district of northern Harris County, where Humble Oil & Refining Co. blocked up approximately 9,000 acres following the completion of considerable geophysical work in the area. In what is known as the Blossom Prairie district, southeast of Hungeford, Wharton County, some acreage is being taken by independents, and also in the Bailey Prairie area, northwest of Angleton, Brazoria County.

Calcasieu Parish

Union Sulphur Co. got a good well at Lockport, Calcasieu Parish, Louisiana, in its No. 4 Moss, which came in flowing 90 bbls. per hour through a half-inch choke, 600 pounds pressure, from sand at a total depth of 4,851 feet. In the same field, Magnolia Petroleum Co.'s No. 6-A Farquahar was setting screen late in the week in 8 feet of sand at a total depth of 6,461 feet, and looked like a good well. Both are on the west side of the field.

Port Barre

At Port Barre, St. Landry Parish, Port Barre Oil Co.'s No. 1 Sibille, north side of the dome, was completed in sand at 3,450 feet flowing 1,000 bbls. of fluid, 30 per cent water. Operators have been working on this well off and on since last April.

Barbers Hill

At Barbers Hill, Chambers County, Mills Bennett Production Co.'s No. 5 Kirby, east side of the dome, set 46 feet of screen in sand at 4,033 feet and made a 300-bbl. well through a five-eighths-inch choke. Humble Oil & Refining Co. and Gulf Production Co.'s No. 10-B Lockwood & Sharp, Rabbs Ridge, Fort Bend County, has been completed flowing 50 bbls. per hour from sand at 5,186 feet. Gulf Production Co. has abandoned its No. 80 Phoenix at Hull after several unsuccessful attempts to make a producer.

Polk County

Dick Schwabb and Shell Petroleum Corp.'s No. 2 Davis-Holmes, A. Viesca Survey, southern Polk County, created considerable interest when it started blowing dry gas. The gas came in after a part of the screen in the hole had been cut and pulled, and ran up a pressure of 1,200 pounds before the well was killed. Operators who have been working with this well for several weeks in an effort to make a commercial producer, have lately been cutting and pulling screen preparatory to plugging the hole back up in the casing and sidetracking back to the sand. The present bottom of the hole is at 4,413 feet to which depth the bottom was plugged from a total depth of 4,438 feet, where a drill stem test showed mostly salt water. A drill stem test was made at that depth and also at 4,428 feet, where some improvement was shown in the water. At the present depth screen was set but the well still showed some water and failed to flow naturally. The outcome of this well has been watched closely by all operators. It is the second well, the first being completed a couple of months ago as a gasser and the discovery well of what promises to be another important field along the old Hickory shoreline. The sand is the same as at Conroe, Montgomery County, the second county to the west.

Tyler County

Along the same trend in eastern Tyler County, in the Spurger district, Republic Production Co.'s No. 1 Sterne fee, plugged back from 5,619 feet to 4,587 feet, made a drill stem test and in five minutes built up a pressure of 500 pounds dry gas. This is the same well which was completed last October in sand at 4,708 feet making 20,000,000 feet of dry gas with a pressure of 1,750 pounds, but which later went to water and was killed.

Brazoria County

Danciger Oil & Gas Co.'s No. 1 Hunt, Carson Survey, western Brazoria County, and discovery well of the Pledger district, is producing approximately 30 bbls. daily of high gravity distillate. This well, which had a pressure of 2,675 pounds, is being produced some each day in an effort to gradually work down the pressure. The well was completed recently in a sand at 6,782 feet and was good for an estimated 50,000,000 feet of gas. The distillate production is being run to field storage. Location for a second test is being held up pending the completion of a survey of the block, which is being divided into 20-acre units. A systematic development program will be carried on with one well to each unit.

Buckeye Area

Two rigs now are running in the development program which the United North & South Development Co. has started for its new field at Buckeye, near Bay City, Matagorda County. The discovery well, No. 1 Stoddard, was completed last September in a sand at 7,926 feet. The second test, No. 1 St.L.&B.M., started drilling last month and now is down 5,400 feet. The third test, No. 2 Stoddard, has just started up.

At Markham, also in Matagorda County, Powers Production Co. is drilling a semiwildcat in its No. 1 Meyers, Block 1. William Hadden Survey, which is of local interest. The location is an outpost on the extreme northeast side of dome.

Wharton County

Smith and associates' No. 1 Mitchell, a deep wildcat in H.&T.C. Survey No. 8,

Gulf Coast Fields and Wildcats

Week Ending January 7

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks:
Humble O. & R. Co.'s No. 4 S. E. Helmuth, Wm. Harvey Sur.	Drlg. gumbo 122 ft.
Humble O. & R. Co.'s No. 9-A Walton, W. C. White Sur., 150 ft. SW of N cor. of 50-ac. tract and 151 ft. SE parallel to NE line	Derrick.
Humble O. & R. Co.'s No. 11 Woodley, Wm. Harvey Sur., 412 ft. out of S cor. of tract	Location.

DAMON MOUND—BRAZORIA COUNTY

Intercoastal Oil Co.'s No. 10 Wisdom, A. Darst Sur., 440 ft. from NW line, 170 ft. from SW line of tract.	Tested S.W. 3,530 ft.; pulling screen.
A. W. Speed's No. 1 D. F. Bryan, A. Darst Sur., 105 ft. from N line, 65 ft. from W line of lease	S.D. 1,051 ft.
Sinclair Prairie Oil Co.'s No. 2 Mock (W.O.), A. Durst Sur.	Drlg. 3,420 ft.
H. Wisdom's No. 1 Wisdom, 50 ft. from SE line, 75 ft. from SW line of Blk. 5, Lot A. A. Darst Sur.	Tested S.W. 1,045 ft.

MANVEL—BRAZORIA COUNTY

Alpha Oil Co.'s No. 1 W. H. Nichols, H. M. Little Sur., 200 ft. W, 200 ft. N of SE cor. of tract	Drlg. gumbo 2,675 ft.

(Continued on Page 62)

north of El Campo, Wharton County, set and cemented 7-inch casing at 6,279 feet. Bottom of the hole is 6,442 feet in shale and is reported showing some gas. The casing was run to protect the hole, it was said. The test is being drilled on a geophysical block worked by the Shell Petroleum Corp. and is of more than usual interest is view of showings encountered in shallower sands which gave indication of opening a new field.

The Gulf Coast still seems to be the attraction of oil companies and operators from other areas who continue to come in here with a view toward acquiring acreage and blocks. So far most of the new comers have been content with "looking around" although several companies have become established here and have opened divisional offices. However, some acreage is being bought and geophysical work started. The general lull in activity throughout the coast is largely a seasonal let-up, and in addition, continued rains have delayed the start of some new work. The remaining wildcat activity is largely west of Houston as the majority of wildcats east of here either have been abandoned or are now shut down and few new tests have started up. Wharton and Colorado Counties at present are mostly in the wildcatting eye.

Victoria County

In the lower Gulf Coast country, Union Oil Co.'s No. 2 Keeran, located in the new Keeran Field of southeastern Victoria County, cored a sand and shale showing oil at 6,077-90 feet and in a seven-minute drill stem test recovered five joints of mud and oil, the latter being about 40 per cent, and showed a pressure of 350 pounds through a three-eighths and a quarter inch choke. Gulf Production Co.'s No. 3 Keeran at latest report was coring sandy shale at 5,916 feet. In the Nursery district of northern Victoria County, Quintana Oil Co. (H. R. Cullen) has spudded in No. 1 McCormic, S.A.&M.G. Survey, Section 3. This test is of interest in view of showings which were encountered in a deep wildcat drilled several years ago by Humble Oil & Refining Co.

Montgomery County

Back in the Gulf Coast proper, Continental Oil Co. and Julius Fohs have started drilling their first test on their joint block in Montgomery County, located some 10 miles southwest of the Conroe Field. This test, No. 1 Rock Creek Lumber Co., is located in the J. Foster Survey and late in the week was down 1,342 feet in gumbo where 10-inch casing was run. The starting of this wildcat has been looked for for some time, the block being looked upon very favorably. R. L. Sprinkle's No. 1 Rohlfs, H. Prosens Survey, northeast of the Continental block and between it and Conroe, is rigging up, and location has been made for Mound Creek Oil Co.'s No. 1 John Sealey, in the John Sealey Survey, still farther north.

Many in Chicago Hopeful on Tank Car Markets

(Continued from Page 22)

demand, as in the case of the kerosenes. These materials also show declines of an eighth of a cent. The heating oils are holding up much better than the gasolines and special naphthas, but it is apparent distributors are making as much capital as possible of the price cutting going on in the Oklahoma and Texas crude oil markets. It has been pointed out that certain Texas sources are offering heating oils under the ruling markets, one naming 3 cents as the price on 38-40 standard white distillate with 50 cars available. The majority of sales are on the basis of the following prices: 32-36 straw distillate, 3 to 3⅛ cents; 38-40 straw distillate, 3⅛ to 3⅜ cents; 32-36 industrial gas oil, 2⅛ to 2¼ cents. The 28-30 zero fuel oil is unchanged at $1.10, and the following grades are 5 cents lower: 22-26 zero, 70 to 75 cents; 18-22 zero, 60 to 65 cents; below 18, 55 to 60 cents.

One of the major companies announces the following prices (ranges to take care of differential points): 38-40 straw distillate, 3¼ to 3½ cents; 32-36 straw distillate, 3 to 3¼ cents; 32-36 amber special gas oil, 3 to 3¼ cents; 32-36 U.G.I., 2¼ to 2½ cents; 28-30 zero domestic, $1.25; 26-28 zero, $1.05; 24-26 zero, 80 cents; 22-24 zero, 70 cents; 18-22 zero, 60 cents. Heavier viscosity and pourpoint materials from 10 to 30 cents below these prices.

One Michigan Completion and That Was a Failure

MOUNT PLEASANT, Mich., Jan. 9. There was but one completion reported in Central Michigan, the Wellman Oil Co.'s second test, 990 feet from the north line and 330 feet from the east line of the Albert Reinhart farm, SE NE SW Section 13, Greendale Township, Midland County, which struck water in the Dundee.

Several wells will require only a short time to bring them in. Those nearing completion are Gordon Oil Co.'s No. 6 on the N. J. Skinner farm, Section 16, Greendale Township, Midland County; Talbot Oil Co.'s No. 1 on the Tope-Talbot farm, SE SE SW Section 11, same township; Pure Oil Co.'s No. 3-A on the Roland Harnick farm, NW NE NE Section 14, same township, and on a 60-acre lease, and Columbia Oil & Gas Co.'s No. 4 on the M. F. McLaughlin farm, SW SW NW Section 15, same township and county.

Tank Wagon and Service Station Prices Are Lower

(Continued from Page 23)

unchanged, although price cutting is still being indulged in in isolated instances where local campaigns for gallonage are in progress.

Demand continues active, particularly on the No. 2 and No. 3 grades.

Bunker Oil

Domestic crude prices have not yet reached the point where any lowering of posted prices for bunker "C" oil is indicated, leading refiners declare, and the market was held unchanged at 75 cents, bulk at terminals, at principal East Coast ports.

Marine demand for bunker oil is holding at normal levels for this season, and there is no pressure from the large marine interests for cuts in bunker oil prices.

Diesel Oil

Last year's contracts with marine consumers have carried over into 1933 and the market for 28-30 Diesel oil remains unchanged at $1.65 at New York and other principal East Coast ports, with the usual lighterage charge of 6½ cents for delivery alongside, and refiners report contract business is holding up well.

More spot inquiry for 26-30 Diesel oil for tank car delivery has developed, and the market remains steady and unchanged at 4 cents.

East Coast refiners are watching Gulf Diesel oil prices closely for some indications of price shading, as a result of the recent crude cuts, but as marine Diesel oil requirements are more or less specialized, this market is not as susceptible to price competition as most other refined products.

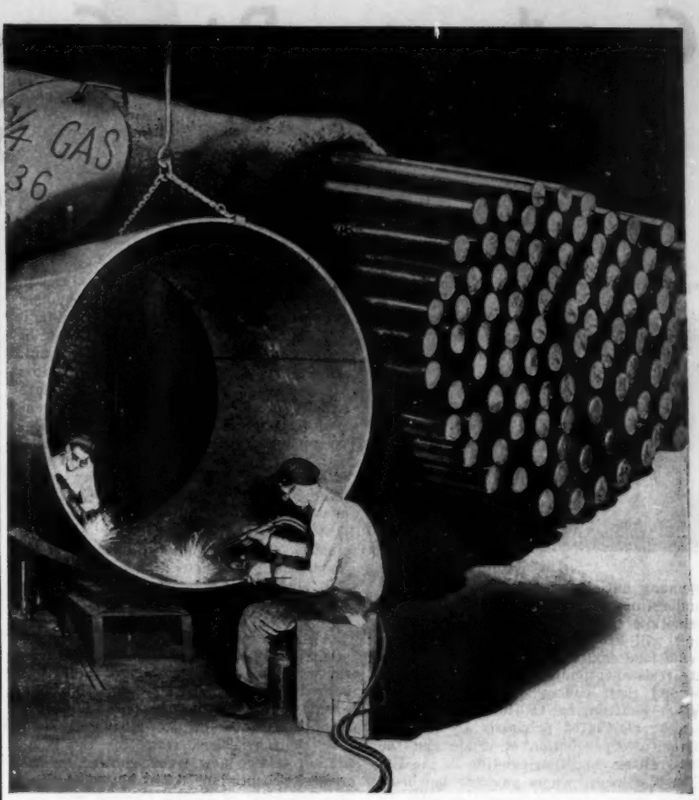
Gas Oil

The market remains in unsettled position and business on 28 gravity minimum gas oil is being freely done at 3¾ cents in tank car lots at terminals, although the posted price remains at 4 cents.

Refiners in booking contract business with large gas manufacturing companies ran into considerable price cutting, and were forced in many instances to scale 1932 contracts downward to hold established outlets.

DEATH OF GEORGE J. GREEN

George J. Green, for 14 years employed in the purchasing department of the Gypsy Oil Co. in Tulsa, who died in Tulsa December 28, was buried at Toledo, Ohio.



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THE CUSTOM-MADE WELDING WIRE — FOR EXACTING WELDERS

Curtailment or Price Cut Is Confronting California; Renewed Efforts to Stabilize the Situation

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Jan. 7.—Despite strenuous efforts to induce California operators to curtail crude oil production to the established allowable of 441,000 bbls. per day, state production is still hovering around 469,000 bbls. daily with very little likelihood the present objective will be reached. Unless a decided improvement materializes within a few days, we may anticipate a reduction in crude and refined oil prices. Major buyers are reluctant to disturb the price structure and will exert every effort to stabilize conditions but have just about reached the resistance point due to circumstances beyond their control. The critical condition confronting California marketers can be attributed primarily to the consistent overproduction of crude and the demoralized condition existing in the Pacific Northwest where gasoline has been selling below cost for several months. In addition, Pacific Coast marketers are facing a decidedly lower demand during the next 90 days and would be obliged to store oil if production continued at its present level. The impending price cut can still be averted if crude oil production is immediately reduced but the lackadaisical attitude of some operators and the indifference of others is not conducive to accomplishment of the desired result.

The crisis is especially unfortunate as recent developments indicated probability that the critical period would have been passed by the end of March, after which a slight relaxation in curtailment might be expected so far as production in settled fields is concerned. Proration in flush fields must of necessity be continued for several years. Many operators were optimistic when the new year rolled around as some little progress had been effected in advancing curtailment, and in addition Long Beach operators ratified a proposal to conform with curtailment for 60 days in the hope that with the last hurdle out of the way the future would show improved conditions. Apparently some of the boys are a little absent-minded because Long Beach production, despite all the signed pledge cards, is still about 7,000 bbls. per day in excess of the allowable maximum of 59,000 bbls. As has been mentioned, the potential price cut can still be avoided if production is reduced at once.

Conditions on the Pacific Caost have reached the point where a reduction in prices may result in a prolonged period of demoralization, especially if the lid is kicked off curtailment. This is not mere conjecture because if major companies proceed with the threat to operate on their own production exclusively unless operators meet immediate curtailment there will not be any further need for proration. Crude buyers will make every effort to prevent a general breakdown and will take the bull by the horns only as a last resort. For several weeks, Umpire Pemberton, Ralph Lloyd of the Oil Producers Sales Agency, and other prominent operators have been endeavoring to convince producers of the precarious position of the industry which is being aggravated by overproduction. Gasoline prices have begun to reflect the uncertainty over the outlook and, while most of the price cutting has been localized in the Long Beach area, this menace may become of more consequence if this dumping continues, thwarting the efforts of those endeavoring to effect curtailment. The independent refiners dumping this distress gasoline are doing so to liquidate existing stocks before the impending general breakdown becomes a reality. Developments during the next few days, both with respect to curtailment and condition of the refined market, may determine conditions on the Pacific Coast for months. The pendulum is in a vertical position but may swing either way, depending entirely upon the success of efforts to stimulate curtailment and maintain stabilized quotations.

Potential Production

Although the potential daily production of many fields throughout the State was revised January 1, 1933, the total registered a net reduction of only 700 bbls. per day, bringing the new potential down from 1,016,700 bbls. to 1,016,000 bbls. The Belridge Field, reflecting the completion of two new wells, showed an increased potential of 6,255 bbls. per day. The potential of Coffee Canyon was increased 230 bbls. daily; Lost Hills, 30 bbls.; Santa Barbara Mesa, 170 bbls., and West Coyote, 1,260 bbls. Decreased potentials were made in practically every other field, although with the exception of Fruitvale, Midway-Sunset, Ventura Avenue, Dominguez, Huntington Beach, Long Beach, Playa Del Rey and Santa Fe Springs, the downward revision was of relatively minor consequence. The potential of Fruitvale was reduced 1,075 bbls.; Midway-Sunset, 625 bbls.; Ventura Avenue, 800 bbls.; Dominguez, 760 bbls.; Huntington Beach, 550 bbls.; Long Beach, 1,015 bbls.; Playa Del Rey, 550 bbls., and Santa Fe Springs, 1,650 bbls. The maximum allowable production of the State for January was increased from 440,000 bbls. to 441,000 bbls. per day, only six changes being made in the original allotment. The quota of Fruitvale and Rincon was reduced 50 bbls. and 100 bbls. per day, respectively. The maximum allowable of Kettleman Hills was increased 1,000 bbls.; Lost Hills, 50 bbls.; Whittier, 50 bbls., and miscellaneous areas, 50 bbls. per day.

Few Completions

Completions were few during the week and, while we may anticipate the addition of new wells from time to time, operators and prospectors are proceeding cautiously. Several thousand acres of potentially productive land has been leased during the past several months but in practically every instance drilling operations can be delayed by payment of nominal rentals. None of the major companies have indicated any deviation from the policy of restricted exploration work and it is likely if any increase occurs in wildcatting it must be done by independent operators. Most of the larger units are provided with adequate resources and sufficient reserves of crude to carry them over several years. Some of the majors, instead of engaging in wildcat exploration, have spent the past several months in rejuvenating and repressuring properties in the older California fields. The Union Oil Co. is perhaps the leader in this type of work. In the Brea Olinda Field the Union repressured the productive formation and has a nice reserve. Periodic tests indicate satisfactory results as wells which were pumping 150 bbls. per day before the repressuring program was instituted are now capable of doing in excess of 2,000 bbls. daily under a natural flow. Similar satisfactory results have been achieved by the Union in the Santa Maria district where the company has been engaged for several years in reconditioning producing wells by replacing corroded casing and correcting faulty shut-off jobs. In addition to reconditioning work in this area, the Union has been consistently repressuring the older zones. It would appear that reconditioning and rejuvenation work would prove advantageous in several areas during the next several months.

Buttonwillow

It appears probable it will be another year before the Buttonwillow Field of Kern County will be in a position to go on commercial gas production. Meanwhile the Milham Exploration Co. is diligently proceeding with exploration work so it will have an ample reserve definitely proven when the necessity arises. During the recent cold spell, Kettleman Hills, Ventura Avenue, Belridge and other oil fields were able to meet the demand for natural gas and thus prevent Buttonwillow and other dry gas fields from going on commercial production. In addition to Buttonwillow, the Goleta gas field is being maintained as a reserve in the event that the gas conservation law or normal decline should make it impossible for oil fields to meet current requirements. Of the two gas fields, Buttonwillow is far the most important and most prolific. Milham's last completion at Buttonwillow was No. 41-1, which was blown in flowing 13,700,000 feet of dry gas per day from 2,511 feet.

Long Beach

The Yunker Oil Co. has recompleted its No. 1 Signal in the Long Beach Field of Los Angeles Basin which was returned to production flowing 351 bbls. of exceptionally clean 27.3 gravity oil and 1,258,000 feet of gas per day. The gas produced by this well, which was bottomed at 4,893 feet and finished with a 5-inch liner carrying 170 feet of perforated, contains approximately 2½ gallons of natural gasoline to each 1,000 feet of gas treated. In addition to the saturated condition of the gas produced by the Yunker Oil Co.'s No. 1 Signal, this well is of special importance because the oil is exceptionally clean, testing substantially less than 1 per cent moisture and b.s. The Republic Petroleum has resumed work on No. 1 Shell-Childs, an abandoned well of the Shell Oil Co. in the Dominguez Field of Los Angeles Basin, and will attempt by careful engineering work to develop commercial production. The Republic Petroleum recently completed No. 1 Childs on this lease, flowing 950 bbls. of 27.2 gravity oil from 4,500 feet, and may be able to accomplish what has heretofore appeared impossible. There is very little development under way in the Dominguez Field as the recompletion of No. 1 Hellman of the Shell, flowing 115 bbls. of clean 26.2 gravity oil per day from 5,739 feet, leaves only No. 7 Hellman and No. 21 Callender of the Union to be completed.

Lost Hills-Belridge

After establishing a maximum potential daily production in No. 51-27 in the North Belridge Field of Kern County, the Belridge Oil Co., in conformity with curtailment requirements, pinched it back to 1,520 bbls. of exceptionally clean 40.4 gravity oil and 5,000,000 feet of gas per day. This well, a recent completion in the Temblor production, registered a maximum of 6,531 bbls. per day. The Belridge Oil Co. is rigging up No. 49-35 in this field preparatory to pulling the liner and deepening the hole to the Wagonwheel zone. Continental Oil Co. has pinched back No. 3 Result, a recent completion in the North Belridge Field, from 312 bbls. to 142 bbls. per day. The Ohio Oil Co. is approaching the 8,100-foot level in No. 1 Bloemer, a deep test which is being drilled to the Wagonwheel zone, and while the exact completion depth has not yet been determined, this project is expected to be given an early production test. The well is showing considerable

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Dec. 24		Dec. 17			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Crude oil	.....	.....	.....	.....	213,322	.....
Diesel and gas oil	.....	.....	246,063	35,152	1,636,228	1,661,863
Gasoline	116,924	16,703	.....	.....	7,560,064	13,279,773
Kerosene	.....	.....	78,759	11,251	280,481	202,384
Foreign exports—						
Crude oil	51,473	7,353	527,418	75,345	3,265,264	7,021,978
Fuel oil	74,610	10,659	133,285	19,041	7,724,430	13,139,315
Diesel and gas oil	10,214	1,459	28,016	4,002	2,743,576	3,440,582
Gasoline	239,015	34,145	.....	.....	8,113,934	8,355,954
Kerosene	116,489	16,641	.....	.....	2,841,585	1,645,733
Lubricants	.....	.....	.....	.....	.....	36,353
Naphtha distillates	.....	.....	.....	.....	120,075	.....
Coastwise-domestic—						
Crude oil	175,113	25,016	209,921	29,989	13,874,967	20,690,043
Fuel oil	201,984	28,855	218,044	31,149	11,600,185	14,202,246
Diesel and gas oil	20,271	2,896	53,488	7,641	1,374,306	1,581,111
Gasoline	180,062	25,722	301,211	43,070	14,707,225	14,332,194
Kerosene	.....	.....	.....	.....	160,886	322,009
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	650,980	.....
Gasoline	121,665	17,381	89,645	12,806	1,373,367	1,187,834
Kerosene	.....	.....	25,295	3,614	257,686	.....
Lubricants	7,965	1,138	.....	.....	39,769	38,236
Foreign exports—						
Crude oil	76,575	10,939	.....	.....	966,497	494,511
Fuel oil	.....	.....	.....	.....	964,102	1,602,618
Diesel and gas oil	157,789	22,541	32,885	4,698	930,746	606,231
Gasoline	29,597	4,228	105,920	15,131	3,960,867	4,474,039
Kerosene	.....	.....	20,630	2,947	1,008,029	914,099
Lubricants	6,985	984	.....	.....	36,979	25,693
Coastwise-domestic—						
Fuel oil	.....	.....	121,843	17,407	2,970,519	3,750,890
Diesel and gas oil	13,716	1,959	56,843	8,121	452,462	438,552
Gasoline	29,741	4,249	32,694	4,671	3,704,540	4,244,319
Kerosene	4,236	606	.....	.....	144,204	287,045
Naphtha distillates	.....	.....	.....	.....	.....	49,780

gas and oil and appears to have all the earmarks of a potential producer. No. 1 Bloemer of the Ohio is correlating approximately 750 feet lower structurally than Belridge Oil Co.'s deep zone discovery which was finished at 8,062 feet. If this interpretation is correct, the Ohio may drill another 500 feet of hole before making a production test.

The Associated is making satisfactory progress in No. 1 Williamson, a projected deep test being drilled in the Lost Hills Field of Kern County, but it will probably be 30 days before it encounters the high head water in this area. It is the present intention to drill through this water zone and land a string of 16-inch casing before drilling ahead. The Standard Oil Co. has plugged back No. 1 Mascot, a deep test in the Midway-Sunset Field of Kern County, and will probably abandon further work if the test is unsuccessful. This well, bottomed at 9,762 feet, is standing plugged back to 8,859 feet. In the Mount Poso Field the Shell has completed drilling operations on No. 6 Vedder at 1,538 feet and a production test will be conducted within a day or so. The Coffee Petroleum is cleaning out No. 3 in the Round Mountain Field and should have this well back on the pump at 1,627 feet during the next few days.

Kettleman Hills

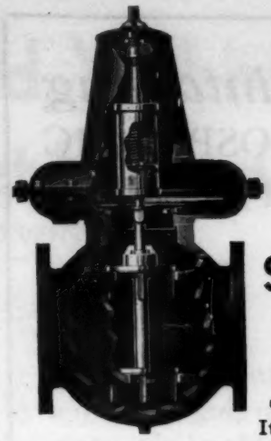
The most important development in the Kettleman North Dome Field during the week was the resumption of drilling by the North Kettleman Oil & Gas Co. in No. 1 Lillis-Welsh, which has been standing suspended for 10 days. It is the present intention of Ed McAdams, who is personally supervising the drilling of No. 1 Lillis-Welch, to land 3,500 feet of 36-pound casing and 6,078 feet of 30-pound casing before making any additional footage. This long string is being especially fabricated to prevent any mechanical trouble as it is not a common occurrence to land and cement such a long string of 7-inch pipe. To preclude as far as possible any difficulty the hole will be carefully reamed out preparatory to running in the 7-inch casing. If the

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status:
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	5,890	hd. sd. drilling
Meganos Oil Co., No. 1 Lompoc, Santa Barbara Co.	28- 8-34	....	material
Smith, E. W., No. 1 Purisima, Santa Barbara Co.	18- 7-34	1,471	suspended
Duell, O. S., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,132	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	3,750	suspended
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	4,089	suspended
Casitas Oil Co., No. 1 Carpinteria, Santa Barbara Co.	tideland	3,310	abandoned
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	2,162	suspended
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	6,106	cleaning out
Indian Pet., No. 1 Rincon, Ventura Co.	tideland	2,115	prod. test
Sovereign Oil Co., No. 1 Fillmore, Ventura Co.	22- 4-19	3,580	br. sh. drilling
Honolulu Cons., No. 1 Miguelito, Ventura Co.	23- 3-24	3,660	sd. sh. drilling
C. C. M. O., No. 3-A Miguelito, Ventura Co.	23- 3-24	mtl.	building rig
Macrate, A. N., No. 1 Ojai, Ventura Co.	27- 4-23	377	suspended
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	1,474	br. sh. drilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	23- 4-21	816	br. sh. drilling
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	6,884	plug 3,840 ft.
Petro Producing Co., No. 1 Timber Canyon, Ventura Co.	18- 4-20	2,312	suspended
International Oil Developers, No. 1 Conejo, Ventura Co.	33- 2-20	2,440	hd. sd. drilling
Anderson, C. L., No. 1 Santa Susana, Ventura Co.	36- 3-18	rig	rigging up
Las Posas Pet. Co., No. 1 Las Posas, Ventura Co.	22- 3-20	rig	suspended
Milham Expl., No. 21 Buttonwillow, Kern Co.	1-28-22	2,511	13,500 mcf gas
Milham Expl., No. 22 Buttonwillow, Kern Co.	31-27-23	rig	rigging up
Purman, T. H., No. 1 Gould Hills, Kern Co.	22-29-21	5,384	circulating
Purman, T. H., No. 2 Gould Hills, Kern Co.	27-29-21	mtl.	building rig
General Pet., No. 1 Belridge, Kern Co.	30-28-21	8,260	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,270	suspended
Holloway, A. S., No. 1 Devils Den, Kern Co.	11-25-18	1,301	br. sh. drilling
Hanna, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,516	suspended
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	3,300	sd. sh. drilling
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	suspended
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	1,213	hd. sd. drilling
Seminole Oil Co., No. 1 Lost Hills, Kern Co.	29-25-21	material	....
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-12-11	360	sd. drilling
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-18	2,121	sd. sh. drilling
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	....	material
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-32-22	3,815	suspended
Emerich Oil Co., No. 1 Carrizo Plains, San Luis Obispo	22-32-22	1,841	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Shell, No. 1 San Miguel, San Luis Obispo Co.	4-25-12	4,077	recemented
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,441	suspended
Thomas Pet., No. 1 Parkfield, Monterey Co.	31-22-14	1,011	sd. sh. drilling
Western Gulf, No. 1 Watsonville, Monterey Co.	29-12- 2	3,198	abandoned
Guess, E. E., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Trinne Oil Co., No. 1 Dudley Ridge, Kings Co.	5-23-20	1,098	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	3,012	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-22-17	5,870	sd. sh. drilling
Kettleman Pacific Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	material
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	suspended
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,268	sd. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,813	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,653	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	23-12- 3	3,045	suspended
Los Banos Pet., No. 1 Los Banos, Merced Co.	26-10- 9	rig	suspended
Buttes Oilfields Co., No. 1 Marysville, Sutter Co.	35-16- 1	602	hd. sd. drilling
Tehama Pet. Co., well No. 1, Tehama Co.	4-22-15	981	hd. sd. drilling
Orland Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,400	suspended

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status:
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	8- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Del Rey Hills Corp., No. 1 Del Rey, Los Angeles Co.	26- 2-15	rig	suspended
Palm Ridge Oil Co., No. 1 Palms, Los Angeles Co.	2- 2-15	3,401	suspended
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20- 3-14	6,378	to abandon
Williams Oil Co., No. 1 Moneta, Los Angeles Co.	33- 3-14	rig	suspended
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	5,863	testing
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	cemented
Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	1,612	sd. sh. drilling
Wilmington Oil Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	124	suspended
Jones, W. L., No. 1 Lynwood, Los Angeles Co.	31- 2-12	4,480	suspended
Roberts, L. E., No. 1 Bell, Los Angeles Co.	29- 2-12	mtl.	building rig
Hutcheson & Andrus, No. 1 El Monte, Los Angeles Co.	11- 1-11	1,397	suspended
Sanbar Pet., No. 1 Saugus, Los Angeles Co.	35- 5-16	950	cleaning out
Smith, J. A., No. 1 Saugus, Los Angeles Co.	32- 5-17	3,515	suspended
Alexander, W. L., No. 1 Newhall, Los Angeles Co.	1- 3-16	501	hd. sd. drilling
Garliepp, F. J., No. 1 Newhall, Los Angeles Co.	14- 3-16	rig	rigging up
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	3,582	suspended
Big Four Oil Co., No. 1 Newhall, Los Angeles Co.	32- 4-16	311	sd. drilling
Marble, Willard, No. 1 Van Nuys, Los Angeles Co.	6- 2-16	1,598	suspended
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	7,259	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	1,970	cleaning out
Mineral Expl., No. 1 Capistrano, Orange Co.	8- 8- 7	4,238	plug 2,402
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	4,560	suspended
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Keeley, H. J., No. 1 Corona, Riverside Co.	21- 4- 6	mtl.	building rig
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4- 6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	35- 1- 2	2,392	suspended
Great American Pet., No. 1 Chino, San Bernardino	18- 2- 8	1,346	gr. sd. drilling
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	680	suspended
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	774	suspended
San Felipe Oil Co., No. 1 Borega, San Diego Co.	25-11- 8	494	suspended



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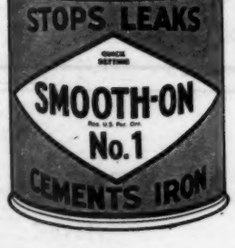

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BARGAINS ON PAGE 79

string of 7-inch is landed and cemented, the North Kettleman Oil & Gas Co. will resume drilling operations and make another 1,000 feet of hole, unless geological conditions change. If this company succeeds in reaching the Kreyenhagen shale it will have done something which has not yet been accomplished by any other operator in the North Dome of Kettleman Hills. Barring the development of mechanical trouble, the North Kettleman Oil & Gas Co. will probably establish a new drilling record for depth, as it is the intention to reach the 11,000-foot level unless commercial production is developed. The Standard Oil Co. encountered an intermediate water zone in No. 67-19 J at 8,848 feet and the well has accordingly been plugged back to 8,640 feet. The company is running a 5-inch liner in this hole preparatory to conducting a production test during the coming week. The Union is making exceptionally fast footage in No. 3 Amerada King as the bit in this hole is rotating at 5,301 feet.

Huntington Beach

Huntington Beach operators appear to have kicked over the traces during the past few weeks so far as curtailment is concerned, with the result that the production curtailed at Long Beach during the period has been more than offset by increased production at Huntington Beach. So far as can be ascertain, there is practically no curtailment in the town lot area immediately adjacent to the ocean front but this condition will be rectified in the near future either by a stricter adherence to curtailment or a price cut. The Wilshire, which recently completed a rather comprehensive reconditioning program in the Santa Fe Springs Field, has decided to rejuvenate its wells in the Huntington Beach Field. The company has started redrilling operations on Nos. 5, 6 and 7 at Huntington Beach and if the result is successful will undertake corrective work on its remaining projects. The Barnsdall Oil Co. has started work on No. 5-A Rosecrans in the Rosecrans Field of Los Angeles Basin and will carry this hole down as a deep test if the well can be cleaned out. The resumption of drilling on No. 5-A Rosecrans is of particular significance as this well will either prove or disprove the existence of a new deep productive zone in the Rosecrans Field. Correlation work indicates the probability that the Barnsdall opened up a new deep zone in No. 2 Trust, a recent completion in the extreme western part of the field.

Ventura Avenue

Based on the present status of development work in the Ventura Avenue Field, there should be three or four new wells completed in this area during the next several weeks. The Associated has two potential producers rotating in the oil sand and has landed and cemented a string of 11¾-inch casing in another. These three potential producers of the Associated are No. 130 Lloyd at 7,268 feet and Nos. 21 and 26 on the Ventura Land & Water Co. lease at 6,565 feet and 7,075 feet respectively. No. 74 Taylor of the Shell is likewise rotating in the oil sand but will require another 1,000 feet of hole before completion. In the Elwood Field of Santa Barbara County, the Barnsdall and Rio Grande are bailing No. 9 on permit No. 88 and will probably list this well for completion within a day or so. In the Santa Barbara Mesa, B. F. Webb has completed his No. 1 pumping 218 bbls. of 17.6 gravity oil per day from 2,187 feet, the hole having been finished with a 6¼-inch liner carrying 61 feet of perforated. In the Santa Maria district the Union has recompleted No. 2 California Coast pumping 105 bbls. of 25.8 gravity oil per day from 3,923 feet.

San Miguelito

The Chanslor-Canfield Midway Oil Co. is not yet in a position to begin drilling operations on No. 3-A Hobson, a new well in the San Miguelito Field of Ventura County, but will probably begin during the next few weeks. The topography of the San Miguelito Field is rather rough and not conducive to fast work. Earth slides are common and have slowed up construction work on new roads. The Honolulu Consolidated passed the 3,600-foot level in No. 1 Valenzuela in this field a few days ago but it will be another month or two before the top of the pay is picked up. Continental Oil Co.'s No. 1 Grubb, completed a few months ago at 7,152 feet, is holding up in good shape since being pinched back in conformity with the curtailment program, as production during the past week averaged 878 bbls. per day. The Continental will be obliged to begin making hole in another well on the Grubb lease in the San Miguelito Field before the close of February, unless an extension is obtained. If crude prices should be reduced within the next few weeks it is probable Continental will request and receive an extension of lease requirements at San Miguelito. The crude oil structure, incidentally, will be the dominating influence in California during 1933, not only so far as wildcat exploration is concerned but drilling operations in proven fields as well.

Exports and Imports of Refined Oil Products

(Continued from Page 23)

714 bbls. daily, during the previous week, and 130,857 bbls. per day for the four weeks ended December 31. Details follow:

(Barrels of 42 gallons)

At Atlantic Coast ports—	Bbls.
Baltimore	79,000
New York	571,000
Philadelphia	176,000
Others	137,000
Total	963,000
Daily average	137,571

There were no receipts of foreign oil at Gulf Coast ports. The week's imports at Atlantic Coast ports consisted of 367,000 bbls. of fuel oil, 557,000 bbls. of crude petroleum, and 39,000 bbls. of gas oil.

As a result of the imposition of a 2½-cent import duty on naphthas, it is expected little if any foreign oil falling under this classification will be imported this year, although one or two cargoes may come forward from Rumania.

Petroleum Exports

The following table shows exports of principal refined petroleum products from the port of New York during the three weeks ended December 31 (all figures in gallons unless otherwise noted):

	Week ended		
	Dec. 31	Dec. 24	Dec. 17
Gasoline	.....	25,000	10,000
Naphtha	2,000	260,000	485,000
Kerosene	2,000	20,000	4,000
Fuel and gas oil	195,000	25,000	198,000
Lub oil	2,393,000	550,000	495,000
Pet., refined	12,000	220,000	295,000
	Pounds		
Petrolatum	10,000	116,000	11,000
Paraffin wax	1,005,000	2,860,000	7,235,000
Refined	50,000	190,000	245,000
Scale	350,000	580,000	265,000
Lub grease	320,000	435,000	762,000

California Oil Receipts

Receipts of California crude and refined petroleum at Atlantic Coast ports during the week ended December 31 totaled 75,000 bbls., a daily average of 10,714 bbls., compared with 413,000 bbls. or 59,000 bbls. daily, for the previous week, and a daily average of 33,571 bbls. for the four weeks ended December 31. There were no receipts of California oil at the Gulf Coast ports during the week.

The week's receipts at Atlantic Coast ports, all of which were fuel oil, consisted of 54,000 bbls. landed at Baltimore and 21,000 bbls. landed at other East Coast ports.

At the close of the week, the following cargoes were reported afloat for East Coast ports from California:

For New York—78,000 bbls. of kerosene on the Richfield tanker Pat Doheny; 95,000 bbls. of furnace oil on the Socony-Vacuum tanker Japan Arrow; and 76,500 bbls. of furnace oil on the Sun Oil Co. tanker Bidwell.

For Tiverton, R. I.—74,500 bbls. of furnace oil on the Union Oil Co. of California tanker, Utacarbon.

Good Well in Laurel Field, Webb County, Texas; Duval County Wildcat Shows Oil and Gas

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Jan. 9.—Another good well at the south end of the Laurel Field in Webb and a wildcat well in Duval County between the Kohler Pool on the southwest and the Sarnosa Pool on the northeast setting casing after getting a showing of gas and oil in the Government Wells sand were principal features of the week in Southwest Texas.

Along with these Gibson Oil Co. brought in a 150-bbl. oil well in the Saxet Field in the sand at 4,861 feet in which only two other wells were completed.

A week ago it was reported that Dyck Oil Co.'s No. 1 Garcia & Villareal, 3,000 feet south of production in the Laurel Pool in Webb County, had come in for 75 bbls. an hour at 2,215 feet. Last week South Texas Oil Co.'s No. 9 Laurel in Survey No. 271, a north offset to Dyck, came in at 2,211 feet for an estimated 2,000 bbls. Some estimates run higher. Final report on the well has not come in and the depth is subject to correction, but the understanding is it had 8 feet of sand.

If the production volume is reported correctly this is a better well than any thus far completed and is running higher. The well was shut in for connections and none of the wells in the field are actually allowed to produce more than around 100 bbls. a day each.

The completion of the Dyck well was the signal last week for a lot of tests to start in that part of the field. Magnolia is rigging up on an east offset to it and Dyck Oil Co. is starting No. 2 as a west offset to its No. 1, and Reward Oil Co. late in the week was down around 750 feet in its No. 1 Laurel, 450 feet northeast of Dyck No. 1, a north offset to Dyck No. 2.

O. W. Killiam is around 1,800 feet in a test a half mile southeast of No. 1 Dyck; L. M. Kaiser is below 1,250 feet in a test a half mile east of No. 1 Dyck, and South Texas Oil Co. is offsetting Kaiser on the north and also starting a test a half mile west of No. 1 Dyck. Reward Oil Co. is starting a test also 1 mile south of No. 1 Dyck and George E. Smith is making a location about 1½ miles southwest.

Tests are thus being started fan shaped in every direction from the Dyck well and covering more than a mile of territory in each direction, and will soon give definite information on what the field will do. North and east of the South Texas Oil Co.'s discovery well of the Laurel Pool and the group of wells surrounding it there is nothing being started at this time though the field promises to extend in that direction also.

New Pool in Duval

Smith & Capps' No. 1 Peters in Survey No. 178, about 2 miles northeast of the Kohler Pool and 8 miles southwest of the Sarnosa Pool, has some signs of opening a new pool in the middle of the chain of pools running from the Cole Pool on the southwest through the Simms, Kohler and Government Wells group.

It had a showing of gas at 1,772 feet which undoubtedly is the sand producing oil and gas in the Kohler Pool on the southwest. At 2,431-51 feet last week it cored sand. The first 6 feet was lost but the next 14 feet showed oil and gas. On drill stem test it made a good showing and has set casing. It should drill in early in the week.

The sand at 2,431-51 feet is undoubtedly the same sand as that producing in the Government Wells group of pools at slightly less depth. Sarnosa Oil Co.'s No. 4 Weil, completed last week and the last completion in the Sarnoca Pool 8 miles northeast, had total depth of 2,430 feet.

McMullen County

Howeth & O'Neill's No. 1 Roos Brothers in McMullen County, 15 miles or more northeast of the Government Wells production in Duval County, but following pretty much along that trend, late in the week had sand at 2,396-2,402 feet and was arranging to run a drill stem test. A sand at 2,349-55 feet showed salt water. The depth is approximately where it ought to pick up the Government Wells sand.

Buchanan, Schoolfield & Frasher's No. 1 Sling, half way between Howeth & O'Neill's test on the northeast and the North Government Wells on the southwest, was down around 2,300 feet late in the week and due to get the sand in a few days if any is there.

Saxet Field in Nueces

One of the most interesting propositions is the completion of Gibson Oil Co.'s No. 1 Rand Morgan in the western part of the Saxet Field for 150 bbls. of oil on quarter-inch choke with 250 pounds on tubing and in sand at 4,861 feet. Recently we referred to the discovery well in this sand as being Gulf Coast Oil Co.'s No. 2 Perkins & Lagasse. This was an error. The discovery well was Hillegeist's No. 1 McGregor at 4,875 feet, which came in for an estimated 300 bbls. Some estimates place the Gibson well at around 250 bbls. Since proration became the fashion, operators are inclined to put the minimum estimate on production and are sidestepping gauges to avoid attracting the attention of operators in other fields to the size of big wells, for fear of bringing on more proration.

There are only a few wells producing from this 4,800-foot sand, which is thought to have considerable possibilities. However, it has not seemed to be uniform, but it is thought by some that in the western part of the field there will be more uniformity and thickness to the sand and greater possibilities.

Western Bexar County

Milo Trussell is about to open a new shallow pool in western Bexar County. His No. 1 Pruitt at total depth of 905 feet has set casing and is going on the pump. It is thought it will make around 15 bbls. daily. A test was drilled on the Carruthers tract a little to the west of it which had a good showing of oil but has been standing and the understanding is this, too, will be put on the pump. The location is a few miles northwest of the Somerset Field and near the western line of the county.

Miscellaneous Wildcats

Without waiting for the drilling of his No. 1 Duval County Ranch Co. in Survey No. 362, 3 miles north of the North Government Wells Pool, William B. Stewart is moving in to drill No. 2 about a half mile to the southwest of No. 1 and 330 feet from the south and west lines of the north half of the southwest quarter of Survey No. 362. The locations are so placed with reference to the Sun's small well on Survey No. 78, 1½ miles northeast, and other wildcats to the northwest that if there is a pool in that part of the country one or the other of the two Stewart tests ought to find it.

Frio County

Amerada Petroleum Corp.'s No. 1 Halff & Oppenheimer, in Frio County, topped the Buda lime at 5,990 feet and is running high according to best calculations and has been showing oil all through the Eagleford and Buda and some also in the Austin chalk. This is one of the most important wildcats in Southwest Texas. The block of some 80,000 acres is one of the largest and the elaborate geological and geophysical work done on the block and the fact that it is in a territory where no tests have ever been drilled reasonably close, combines to make it interesting. Unless there is more than the ordinary thickening of formations that occurs west of San Antonio it will not be long before this test goes into the Edwards lime. Austin chalk was topped at 5,435 feet, Eagleford at 5,901 feet (subject to paleontologists' report) and Buda at 5,990 feet and late in the week it was drilling below 6,020 feet. About 375 to 400 feet should carry it to the Edwards.

Laurel Pool—Webb County

Wolcott & Rehmet have closed a contract with Harris T. Smith of M. T. Smith & Co. of Oklahoma, and Story, geologist of Oklahoma, to drill two wells on the south half of the southeast quarter of Survey 23 of Webb County, a half mile north and slightly east of the discovery well of the Laurel Field. The south end of this field has been attracting wide attention due to the big wells lately brought in. The only test drilled to the north thus far is the Hamill & Hamill and Wolcott & Rehmet's No. 1 Sarah Lloyd, 150 feet from the south and east lines of the southwest quarter of Survey 23. This test got 4 feet of formation carrying some oil and was high but seemed to indicate that the sand was pinching out to the northwest and the well was not completed though it probably would have made a small producer. The new Smith & Story test will be a little to the east of that and if the Laurel Field takes a slightly northeast-southwest trend as most of the Laredo pools do the new location ought to get in the "pay." One of the two tests they will drill is to go to 3,500 feet. Production is had in the producers at around 2,240 feet.

Duval County

Edwin M. Jones' No. 1 Duval County Ranch Co., in Survey 278, a few miles southwest of the S.R.C. Pool in northwestern Duval and a few miles northeast of the new pool in northeastern Webb County brought in recently by the Milam Drilling Co., got a sand at 1,743-50 feet and is testing. This is about to be the same sand that is producing in the S.R.C. Pool.

This test is on acreage assembled by the Vacuum Oil Co. which drilled one test in Survey 280 and missed. Hornbeck recently completed a test in Survey 281 to the north and failed to get any sands. Edwin M. Jones' location was made with the benefit of the logs of the other wells and has found the sand with a showing of oil.

Wildcat Operations in Southwest Texas

Week Ending January 7

ARANSAS COUNTY

Company, farm and location—	Remarks:
F. E. Kestler's No. 1 McCampbell, 150 ft. from N and E lines of Lot 1, Blk. 58, McCampbell ranch	T.D. 1,100 ft; drlg.

BANDERA COUNTY

Van Winkle's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 400 ft; standing.
E. A. Parkford's No. 1 Duke, 200 ft. from S line, 150 ft. from W line of Sec. 7, G.C.&S.F. Sur.	Location.

BASTROP COUNTY

Champion's No. 1 Rivers, center W½ of 800-ac. tract in Osborne Sur.	T.D. 1,200 ft; drlg.
J. E. Emanuel's No. 1 H. Klemm, 817 ft. from W line, 300 ft. from S line of tract in R. S. Teal Sur.	Rigged up and standing.
Humble O. & R. Co.'s No. 1 Annie Hassler, 750 ft. from W line, 330 ft. from S line of lease in Samuel Wolfenberger Sur.	Moving in.
Liberty Oil Co.'s No. 1 Lizzie Davis, 1,300 ft. to NW lines, 450 ft. to SW lines of 50-ac. tract in Geo. A. Stovall Sur.	T.D. 2,396 ft; drlg.
Marts & Beavens' No. 1 Cottingham, 216 varas to NE lines, 2,300 varas to SE lines of Elizabeth Standifer Sur. No. 24; near Elgin	T.D. 400 ft.; drlg.
Marts & Beavens' No. 1 Roy Rivers, 860 varas from SE lines, 54 varas from NE lines of Mrs. Lucy Rivers' 582-ac. Elizabeth Standifer Sur. 24	Rigging up.
Ogden & Reed's No. 1 Miers, beginning at the intersection of the C. L. Riddle and W. M. and Viola Riddle tracts, thence W 300 ft., thence S at right angles 150 ft. in W. H. Leech Sur.	T.D. 2,220 ft; in Serpentine; dry.
Ogden & Reed's No. 2 J. W. Mears, 600 ft. W of No. 1 Leach Sur.	Location.
Ogden & Reed's No. 2 Riddle, 600 ft. N of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 3 Riddle, 600 ft. N of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 4 Riddle, 600 ft. S of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 5 Riddle, 600 ft. E of No. 3, J. Gray Sur.	Location.
Ogden & Reed's No. 6 Riddle, 600 ft. E of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 7 Riddle, 600 ft. E of No. 1, J. Gray Sur.	Location.
Properties Trading Co.'s No. 1 Henry Freitag, 400 ft. from SE line, 1,800 ft. from NE line of P. Conley Sur.	T.D. 2,204 ft; resuming work.
Nelson Pruitt's No. 1 C. Lentz, 330 ft. from NE line, 2,050 ft. from SE line of 400-ac. tract in J. B. Lentz Sur.	T.D. 2,499 ft; S.D.

(Continued on Page 65)

Well in Lee County, Kentucky, Revives Interest; Seven Completions in Central Ohio Area

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Jan. 9.—In the old Lima Field of northwestern Ohio only one completion was reported, a light gas well drilled by Ross & George in a second test on the Solomon C. Betts farm, Section 8, Monclava Township, Lucas County, the gas being found in the Trenton lime from 1,225-40 feet. This well made 4,000 feet initial, but went to 160,000 feet three hours after a shot. Daviess and others are still shut down on the C. B. Holloway farm, Section 7, same township, at 1,025 feet. Dillon, McFredcrick and others are drilling No. 2 on the S. D. and Florence Butz farm, Section 28, same township. In Sandusky County Ackerman and others are shut down by a fishing job at 400 feet on the Burley Waggoner farm, in Sandusky Township, Section 31. In Ballville Township, same county, O'Brien and others are shut down at 1,568 feet.

Newcomer and others are shut down at 1,913 feet on the Albert Reber farm, Section 24, Pitt Township. Green and others are shut down on the Mary McElhaney farm, Section 15, Hopewell Township, Seneca County. Miller and others are drilling around 150 feet on the L. D. Creeger farm, Section 10, same township.

Carey Oil & Gas Co. is drilling around 500 feet on the Joseph Weinandy farm, Section 27, Crane Township, Wyandot County, and McPheron and others are moving in a rig on the Carl Smith farm, Section 33, same township.

CENTRAL OHIO

Only seven completions were reported from the Central Ohio Field, one being an oil well for 8 bbls., two dry holes and five gas wells. Of this number three were in Stark County, the most active area for gas development in the entire field. In Jackson Township, the Ohio Fuel Gas Co.'s No. 4-5,689 on the Henry W. Stockert farm, Section 15, is a gas well. East Ohio Gas Co. has gas wells in No. 1 on the E. and E. Franks farm, Section 23, same township, and No. 2 on the John Wyles farm, Section 13, same township. There are 6 rigs up and 19 wells drilling in Stark County. White and others abandoned No. 1 on the Disposal plant, in Section 7, Plain Township, same county. McClay Brothers are drilling on the E. and M. Luthia farm, Section 23, Lawrence Township, same county.

In Muskingum County the Ohio Fuel Gas Co. reports a dry hole in No. 22-5,684 on the Carrie Staker farm, Section 10, Brush Creek Township, in the Clinton at 4,188 feet. Fritz Oil & Gas Co. struck a small gas well in No. 3 on the Edward Middleton farm, Section 10, same township, in the Clinton at 4,146 feet.

Wittmer Oil & Gas Co. is drilling on the E. and E. Stover farm, Lot 46, Bristol Township, Trumbull County. Barnhart and others have a rig on the J. Montgomery farm, Section 25, Jackson Township, Stark County. McMillan and others are drilling No. 2 on the Frank Kovarik farm, Lot 95, Eaton Township, Lorain County.

In Medina County the Oko Oil & Gas Co.'s No. 9 on the Celestia Richards fram, Lot 1, Chatham Township, produced an initial of 8 bbls. from 483 feet. Barnhart and others have a fishing job on the Hillside Country Club, Lot 4, Richfield Township. Hulse and others made location for No. 8 on the Denoyes Realty Co. land, Lot 78, Medina Township.

In Ashland County Kuntz-Hulse, Inc., drilled a dry hole in No. 4 on the J. A. Heffelfinger farm, NW Section 16, Lake Township, at 569 feet.

INDIANA

In Hancock County the Vernon Natural Gas Co. drilled in a light gas well in No. 1 on a town lot in Fortville.

The Indiana oil and gas report compiled by Paul F. Simpson, state gas supervisor, Department of Conservation, Division of Geology, follows, by counties:

Daviess County — The Indiana Southwestern Gas Corp. has a gas well on the Henrietta Goslin lease in the SW Section 9, Harrison Township. It was reported a well is being drilled on the Ira Doty farm, in Veale Township, in Section 29.

Gibson County — The Wabash Public Service Corp. is drilling No. 5 G. B. Allen, in the NE Section 22, Columbia Township. Production from the No. 2 L. W. Gudgel, completed by the Knox Engineering Corp. a short time ago, in the southeast quarter of the same section, was reported at 8,900,000 feet, at a total depth of 1,455 feet. In the NE Section 23, the Indiana Southwestern Gas Corp. completed No. 1 Eunice Heldt, a dry hole at 1,594 feet. In the NW Section 23, Knox Engineering Corp. is drilling No. 1 S. H. Kirk, and in the southwest quarter of the same section, No. 1 G. C. Sampley.

Hancock County—J. Harvey Snider is drilling on the Sarah Ross farm in Brandywine Township. In Section 28, Jackson Township, the Knightstown Natural Gas Co. completed a good well in No. 2 Thomas L. Smith. A pressure of 35 pounds was gauged.

Knox County—The Glengarry Oil Co. is drilling No. 1 William M. Alsop, in the SW Section 12, in Busseron Township.

Kosciuko County — The Kosana Oil Corp.'s No. 1 W. O. Wehrly, in the NE Section 10, Van Buren Township, is drilling at about 500 feet.

Monroe County—The Ohio Oil Co. and the Petroleum Exploration Co. have started No. 1 Owen Harris, in the SW Section 33, Benton Township. These companies completed a dry hole at 870 feet

(Continued on Next Page)

Calhoun County, West Virginia, Getting Play; Wildcats in Virginia Encounter Trouble

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Jan. 9. — Only three wells were completed the past week, a small producer and two fair gas wells. Except as small pool extensions of proven fields develop there is little active drilling in the eastern fields. The larger companies have ceased operations except necessary offset wells as contracted for since gas is still surplus in the East, and curtailment bans prevent increasing production. The one exception to this in the East is in the upper country, the Bradford and Allegany districts, where water repressuring demands constant drilling in the direction of flow.

SOUTHEAST OHIO

But one completion was reported in Southeast Ohio during the week and it resulted in a small pumper. In Section 30, Newport Township, Washington County, near Eight Mile Creek, C. L. Benedict and others completed No. 6 on the John W. Mendenhall farm. It was drilled in the Second Cow Run sand at a depth of 1,225 feet and will make about a half barrel pumper.

In Section 10, Independence Township, Washington County, drilling was resumed in the Benedum & Trees test on the E. E. Knowlton farm after the seasonal shutdown. It is now past the 6,700-foot level with at least 300 feet to go before striking the Clinton sand. At this depth cable drilling is slow especially in the hard lime formation encountered.

Drilling in Ohio

Drilling in Ohio, with no additional reports, is Hopewell Oil & Gas Co.'s No. 3 on the Ida B. Staker farm in Section 10, Brush Creek Township, Muskingum County. A fishing job at 2,900 feet prevented an earlier completion. No. 4 on the same farm was a fair gas well. In Licking County, Emerald Petroleum Co. and others are prepared to test the Mossholder heirs farm in Section 17, Fallsbury Township. In the same section very fair production has been found. In Hanover Township, Edward H. Everett & Co. are continuing to drill on their productive lease on the Felix Claypool farm in Section 7.

In Tuscarawas County, Hopewell Fuel Gas Co. is prepared to test the Ella Moore farm in Washington Township and Lot 29.

In the shallower districts of Southeast Ohio, in Medina County, Vinton County, Meigs and Athens Counties, the head is off the drilling programs and new operations there are more or less desultory. Noble County still maintains an active appearance in the shallow sands.

In Belmont County, no new production has been completed in Richland Township where four fair natural producers gave an appearance of a small pool but no real test has been made of the wells, the curtailment of production having prevented their opening. In Union Township, one gas well is drilling close to the four wells recently completed in Sections 29 and 35 and which made very fair showings.

WEST VIRGINIA

No new production was reported from West Virginia and but two gas wells were completed, both of which were fair.

In Calhoun County, Creed Barker and others completed a very fair test on the Lloyd Kelley farm in Sherman district. It is a Maxon sand well at a depth of 1,872 feet and gauged in excess of 1,500,000 feet a day. In the same county but on the waters of Coal Fork Creek in Sheridan district, W. A. Bickerstaff & Co. completed a second test on the William Cooper farm. It was also drilled in the Maxon sand a depth of 1,897 feet. It is showing for about 500,000 feet daily.

With the completions of several fair wells in Sherman and Sheridan districts in Calhoun County, drilling has taken on renewed activity, partly on account of lease clauses. Roy Waggoner and others will be the next completion in Sheridan district, their second test on the Clay Chenowith farm having reached 1,800 feet. In the same district, Ira Haught is ready with a rig for a second test on the Alva Elder farm and L. B. Carroll has a rig standing on the Pell Shank farm. In Sherman district, Creed Barker and others have the material on the Bert Fowler farm, and H. B. Scott has made a location for a second test on the Board of Education lease. McCall and others have reached 1,000 feet on the William Poling farm. In Lee district, F. F. McIntosh is down 800 feet on the S. A. Hays farm. In Washington district, C. B. Lewis has reached 1,550 feet in his second test on the Louie Hamilton farm. In Sheridan district, the Hope Construction & Refining Co. is drilling its No. 3,551 feet on the Elza and Newton Criss farm and has made 900 feet.

Other Drilling

No new developments have taken place in Gilmer County since the failure of two tests to find paying production in DeKalb district. Two wells are still drilling. James A. Tierney is on top of the Injun sand in the No. 2 F. G. Hardman, having reached 2,063 feet, past what had been expected would find production in view of the test on the Engle heirs farm. Poling and McDonald and others are fishing for the tools at 800 feet in their test on the Miles Snyder farm.

In Roane County no wells are drilling but work for two tests is proceeding. In Smithfield district, Charles Despard and others have the material on the Charles Starcher farm. In Curtis district the Reedy Oil & Gas Co. is getting ready for a test on the M. L. Santee farm.

In Cabell County four wells are drilling. C. C. Wolfe and others have reached a depth of 3,000 feet on the Calhoun and Justice farm in Guyandotte district, about on top of the Berea and lost the tools. The Cisco Drilling Co. is down 665 feet on the Ed Bull farm. The Guyan Valley Gas Co. has reached 1,325 feet in a second test on the C.&O.R.R. Co. lease. In McComas district, D. R. Campbell and others are at a depth of 1,400 feet on the Gilbert Holton farm.

In Lincoln County one new test is scheduled. In Jefferson district Pridemore and Adkins are rigging up to drill on the Lonnie C. Egnor farm. In the same district, the Bulger Gas Co. is down 2,000 feet on the Samuel Van Gundy farm resuming work after a shutdown of a week.

Logan County has three wells drilling.

Roberts and Jarrett have a test drilling on the Hubert Ferrall farm in Chapmansville district and the Cumberland Petroleum Co. is drilling at 1,442 feet in No. 8 on the Merrill Coal Co. tract. In Logan district, the West Virginia Gas Co. reached 1,600 feet in No. 37 on the Guyan Mercury Co. lease and shut down.

In Boone County, Scott district, the Cambridge Gas Co. is pulling casing in its No. 4 on the C .C. Lewis heirs farm at a depth of 1,900 feet. In other parts of Boone County work is very slow mostly being confined to necessary repairs. In Kanawha County, the deep test of Grosscup and others on the No. 3 J. L. Dickinson, in Elk district, which is being drilled deeper, has temporarily stopped at 4,555 feet. A lost bailer is being drilled up. In Union district, Ellyson and Wilson are drilling a deep test on the Virgil C. Tate farm. Other rigs and tools are standing ready to proceed in the advent of a betterment in conditions.

In Doddridge County the Murphy Oil Co. is drilling its No. 9 on the W. B. Allen farm, McClellan district. It is now 1,915 feet deep. In Wetzel County, the Manufacturers Light & Heat Co. test on the Caleb B. Freeland farm in Church district has reached 1,250 feet.

SOUTHWEST PENNSYLVANIA

No wells were completed in Southwest Pennsylvania during the week, and few are drilling. In Allegheny County, M. C. Rodgers and others are drilling on the Grace W. Wolf farm in Harmar Township. In the McCandless Township boom the last few small completions have discouraged additional drilling.

In Greene County, Johnson and Eddy have resumed drilling their second test on the Frank Roberts farm in Gilmore Township. It is 2,300 feet deep.

In Washington County no new wells have started. In South Franklin Township, the Union Gasoline & Oil Corp. has reached 2,680 feet on the A. N. Hathaway farm which is being drilled deeper. Additional work is expected soon in Amwell Township. Two rigs are now standing, both for tests.

Lower Wildcats

Work was suspended in Virginia during the holidays and no additional progress was made in the wildcats drilling in Virginia. The tests of Benedum & Trees both encountered trouble in various forms in Russell County and Wise County. In McDowell County, West Virginia, the test on the Pocohontas Coal Co. tract is shut down with the tools lodged in the hole beyond 6,000 feet. Difficulty is being met in jarring them loose.

Central West Fields

(Continued from Preceding Page)

on the C. M. Thompson farm in the NW Section 18, Benton Township, and a dry hole at 694 feet on the A. H. Young farm, in the NE Section 12, Bloomington Township.

Perry County—Charles E. Dice is drilling in the fourth well on the Mary Backer farm, in the NW Section 13, Troy Township. No. 1 Cora Dixon, being drilled by Dr. C. C. Taliaferro in the NW Section 11, Clark Township, is at 425 feet. Davis and Basinger are starting No. 1 John W. Esarey, in the NW Section 3, Anderson Township. In the NW Section 5, Roger E. Williams has spudded and is drilling in No. 2 Matt Gayer. Hughes and others are drilling No. 1 Claude Hall, in the NE Section 2, same township. In the SE Section 3, Walter Parks and others are drilling on the Morley farm.

LEGAL

For Sale. By order of the District Court sealed bids will be received by me until March 1 for the following property in Ward County, Texas, viz.: Straight oil and gas lease on 40 acres N.E. part of Section 10, Block 32, H.&T.C. Rwy. Co. Survey. Well producing 12 barrels sweet oil daily, 32 gravity. Depth 2,240 feet. Also has 7,000 feet 2-inch line, 2,100 feet 2-inch tubing in well, three oil tanks capacity 100, 250 and 500 barrels. Pipe line connection. Court reserves right to reject any or all bids. Certified check for 10 per cent of bid must accompany each bid. C. C. Dorr, Receiver, Grand Falls, Texas.

No. 4 Andrew J. Peters, completed by Dr. C. C. Taliaferro in the NW Section 11, Troy Township, produced 40 bbls. initially from a total depth of 415 feet. No. 3 on this farm was plugged because of water. In the same township, George W. Porter is down 525 feet in the No. 1 Charles Reed, in the SE Section 23.

Pike County — No. 1 Edward Adams, in the SE Section 17, Wabash Township, was completed by Claude Noble with a reported production of 2,000,000 feet of gas. In the same township, A. E. Davis was down about 700 feet in No. 1 Frank Aurand. The Indiana Southwestern Gas Corp. completed a dry hole at 1,154 feet in No. 1 C. Bradfield, in the SE Section 18, Washington Township. Claude Trusler is drilling No. 1 Charles Lucas, in the SW Section 17. Van Burden is reported drilling on the Blythe Miley farm, in Washington Township. In the NE Section 18, H. H. Risher completed No. 1 H. J. Miley at 1,089 feet, with an open flow production of 1,600,000 feet of gas. In the NE Section 13, A. B. Bement completed the Andrew Willis test dry at 1,237 feet.

Spencer County — The Santa Fe Oil Co.'s first well on the F. W. Grass farm, in the NE Section 11, Huff Township, was shut down after reaching the Jackson sand. Vans Oil Co. completed No. 5 G. A. Grass in the same section with an initial production of 12 bbls.

Starke County — Henry A. Joern is drilling on the Lincoln National Life Insurance farm, in Section 35, Davis Township.

Sullivan County—William M. Wood is starting No. 1 John L. Bohanon, in the SE Section 18, Curry Township. Same parties have shut down No. 1 Emma Lloyd, in the northwest qaurter of this section, at 275 feet. In the SW Section 10, Jackson Township, the Jackson Hill Coal Co. is drilling on its own land. The Glengarry Oil Co. completed a dry hole at 872 feet in No. 1 Charles McKee, in the SW Section 6, Gill Township.

Tippecanoe County — The Coates-Smith Oil Corp. is drilling on the Methodist Episcopal Church land in Section 27, Tippecanoe Township.

Vanderburg County — John L. Drake and others are starting the third and fourth wells on the John and Mary Effinger farm, in the NW Section 33, Center Township. John Knapp and others are drilling No. 1 Oscar Euler, in the SE Section 29. The Maxwell Petroleum Corp. completed a 90-bbl. well in No. 2 George W. Hornby, in the SW Section 33, and has started No. 3. J. S. Young, Jr., is starting No. 1 Iglehart Milling Co., in the southwest quarter of the same section. No. 3 Theodore Kinder, in the northwest quarter of this section, was completed by R. J. Rendall with 15 bbls. initially from 894-908 feet. No. 1 Fred Krieger, in the SW Section 28, was completed by Knapp & Drake at 923 feet, with 25 bbls. initial production, and a second well is drilling. The Big Four Oil & Gas Co. is drilling No. 1 Nettie M. Patterson, in the NE Section 29. A short pipe line built recently to connect the new Vanderburg County Pool with the C.&E.I. Railroad yards at Evansville, is furnishing an outlet for much of the flush production.

ILLINOIS

In Illinois the Snowden-McSweeney Co. abandoned No. 1 on the Charles McOrr farm, NE Section 30, Bridgeport Township, Lawrence County.

KENTUCKY

The strike made by D. L. Johnson and others on the Brandenberg Mineral Co.'s land, 5 miles south of Heidelberg, in Lee County, is one of the important completions in the eastern part of the state for a number of years and may bring about a heavy development, as in the earlier days Lee County had a large production covering a large area. The well is making 75 bbls. initial, indicating a new pool. Johnson and others have a large acreage and there is considerable activity in the outlying territory, several tests to be started as soon as weather permits. The Johnson well found its production

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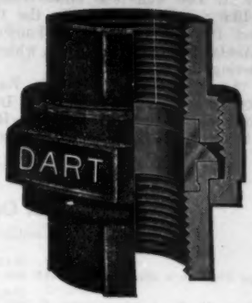

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in the Corniferous formation at a total depth of 718 feet, and No. 2 is under way on the same property 500 feet east of No. 1. The well is 3 miles from the pipe line formerly owned by the Cumberland Pipe Line Co., now known as the Ashland Pipe Line Co., which is connecting the well to its line.

In the old Glasgow Field, in Barren County, Dr. E. E. Edwards of Irvine drilled in a wildcat on the J. P. Boyd, Sr., farm near Goodnight, in Barren County, which is reported with an initial of 20 bbls. from a total depth of 450 feet. Increased activity is expected in the vicinity.

In Ohio County the Petroleum Exploration Co.'s No. 2, 200 feet from the north line and 600 feet from the west line of the C. M. Farmer 320-acre farm, 2 miles east of Whitesville, proved dry.

In Hancock County, Bolling & White's No. 4 on the Preston Matthews farm in the Richards Hill Pool, produced 5 bbls.

Wildcat Operations in Kansas

(Continued from Page 47)

HARVEY COUNTY

Phillips Pet. Co.'s No. 1 Weebe, NE SE NE Sec. 30-23-2..Drlg. 1,100 ft.

MARION COUNTY

Farrell et al's No. 1 Williamson, C NW SE Sec. 21-19-4..S.D. 1,100 ft.
Vernon et al's No. 1 Schmidt, C SW NW Sec. 35-19-1.....S.D. 3,215 ft.

McPHERSON COUNTY

Lario O. & G. Co.'s No. 1 Wilke, C SE NE Sec. 34-20-4w. Drlg. 350 ft.
Holcomb & Trummer's No. 1 Waltner, SW NE SE Sec. 19-20-2w .....Location.
Whan et al's No. 1 Nelson, NW SE Section 18-19-2w.....Location.
Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-3w..... S.D. 2,858 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 28-17-1w..S.D. 1,205 ft.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE Sec. 32. 34-43w .....T.D. 3,640 ft.; temp. abd.

NESS COUNTY

Sinclair Prairie Oil & Gas Co.'s No. 1, C SW SW Sec. 16-19-21w .....Drlg. 3,920 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w..... ..Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW Sec. 21-14-15....S.O. 2,190-2,200 ft.; temp. abnd.

PRATT COUNTY

Minnesoah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 18-27-11w .....T.D. 3,420 ft.; water. S.D.

RENO COUNTY

Skelly Oil Co.'s No. 1 Cole, C SE NW Sec. 4-26-8w .... Drlg. 1,400 ft.
T. L. Johnson's No. 1 Crotts, NE NW NE Sec. 27-26-10w. S.D. 50 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w..... Rig.
J. Liggett et al's No. 1 Thodel, C NW NW Sec. 11-21-7w. S.D. 50 ft.

SALINE COUNTY

Frank Dister's No. 1 Fulton, SW NW Sec. 14-16-3w. ... Rig.

SEDGWICK COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Landon, C SE NW Sec. 13-28-2 .....Top Sil. 3,303 ft; S.D. 3,516 ft.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE Sec. 10-32-39w....S.D. 5,521 ft.

STAFFORD COUNTY

Stringer et al's No. 1 Swindle, SW NE Sec. 2-26-11w....Spudded; S.D.

SUMNER COUNTY

Deal Oil & Gas Co.'s No. 1 Thompkins, SW cor. Sec. 26-33-1 .....Machine.

WOODSON COUNTY

Steedy et al's No. 1 Ryan NE SW SW Sec. 32-24-14 .... Drlg. 1,725 ft.

Gulf Coast Fields and Wildcats

(Continued from Page 54)

R. A. Gamble et al's No. 1 Sherwood, Lot 15, Allison-Richey Subd., H. N. Little Sur. .....Location.
The Texas Co.'s No. 4 Belcher, Harvey Little Sur., 2,900 ft. S, 43 deg. W, 400 ft. S, 48 deg. E, out of N cor. of lease .....Sand and boulders 2,300 ft; cmtd. to 2,263 ft; cmtd. hole.

WEST COLUMBIA—BRAZORIA COUNTY

The Texas Co.'s No. 9 Abrams (W.O.), Geo. Tennille Sur. Losing returns 2,956 ft.

BARBERS HILL—CHAMBERS COUNTY

Humble O. & R. Co.'s No. 1 Kirby, Henry Griffith League, 208 ft. from S line, 100 ft. from E line of lease .....Salt 3,906 ft; D.S. stuck.
Mills Bennett Prod. Co.'s No. 1-C Gulf fee, Wm. Bloodgood Sur., 150 ft. N of Gulf's No. 1 Fisher fee ....Coring wtr. sand 4,029 ft.
Mills Bennett Prod. Co.'s No. 5 Kirby, Henry Griffith League, 400 ft. from W line, 41 ft. from S line of tract .....Set 46⅓ ft. of 5-in. (O.D.) screen 4,033 ft; comp. flowing 315 bbls. P.L. oil, ⅝-in. choke; 73 lbs.
D. B. McDaniels' No. 6 Wilburn, Henry Griffith League, 240 ft. W of No. 5 .....Drlg. shale and lime 3,771 ft.
Sinclair Prairie Oil Co.'s No. 2 Smith (W.O.), W. D. Smith Sur., 30 ft. from N line, 50 ft. from E line of 30-ac. tract .....Drlg. sandy shale and lime 6,041 ft.
Sinclair Prairie Oil Co.'s No. 12 Wilburn, Henry Griffith League, 150 ft. W of No. 11 .....Drlg. hard sandy lime 4,218 ft.
Sun Oil Co.'s No. 15 J. Wilburn, Wm. Hodges Sur., 343 ft. from N line, 420 ft. from W line of lease .....Drlg. sandy shale 2,761 ft.
The Texas Co.'s No. 3 Lawrence fee, Henry Griffith League, 740 ft. W of E line in center of tract.....Drlg. salt 1,771 ft.
The Texas Co.'s No. 9 Wilburn, Henry Griffith League, 580 ft. E of NW cor. and 50 ft. S of N line ..... Drlg. out cmt. 1,204 ft.
Texas Gulf Prod. Co.'s No. 12-H Kirby, Henry Griffith League, 429 ft. W of No. 8-H and 66 ft. N of S line..Drlg. salt 1,457 ft.
Texas Gulf Prod. Co.'s No. 3 Tarbutton, Henry Griffith League, 746 ft. from E line in center of tract.....Sand 4,014-23 ft; cmtd. 7-in. csg. 4,015 ft.
Texas Gulf Prod. Co.'s No. 2 O. K. Winfrey, W. D. Smith Sur., 295 ft. N of SW cor. of A. E. Barber lease, 100 ft. W of E line of Winfrey lease .....Salt 6,208-53 ft; D.S. stuck 4,700 ft; sidetracked and drlg. rock 3,082 ft.
Yount Lee Oil Co.'s No. 4-A Zadie Fisher, Wm. Bloodgood Sur., 301 ft. from W line, 96 ft. from S line of tract .....T.D. 6,363 ft; drlg. sidetracked hole in shale and lime 6,171 ft.

BLUE RIDGE—FORT BEND COUNTY

San Jacinto Oil Co.'s No. 1 Blakely, 250 ft. from W line, 50 ft. from N line of Blk. 9, Sec. D, E. Drek Sur. ....No report.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co.'s No. 3 Gubbels, Samuel Kennedy Sur., 1,000 ft. N of No. 1 and 300 ft. E of W line of 100-ac. tract .....Drlg. shale and lime 3,543 ft.
Gulf Prod. Co.'s No. 1-A Gubbels, Samuel Kennedy Sur...Derrick.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 10-A F. L. Booth, Samuel Kennedy Sur., 2,779 ft. along N line of lease from SE cor. of J. Gubbels' 100-ac. lease and 485 ft. S at right angles .....Drlg. sand and shale 3,260 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 6 George, J. Rabb Sur. .....Drlg. shale 3,536 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A George, J. Rabb Sur. .....Derrick.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 11-A Lockwood & Sharp, J. Rabb Sur. .....Location.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 12-A Lockwood & Sharp, J. Rabb Sur., 833 ft. E of No. 9 Cmtd. 7-in. csg. 4,984 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 13-A Lockwood & Sharp, J. Rabb Sur., 4,174 ft. E, 522 ft. S of NW cor. of lease .....Spudded.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 9-B Lockwood & Sharp, J. Rabb Sur., 850 ft. E of No. 7 ....T.D. 5,296 ft; cmtd. 7-in. csg. 5,054 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 10-B Lockwood & Sharp, J. Rabb Sur., 1,750 ft. from E line, 400 ft. from S line of 938-ac. lease .....Comp. flowing 50 bbls. per hr. 5,186 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 5 T. R. Booth, Samuel Kennedy Sur. .....Drlg. shale 4,075 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 1 R. A. and O. H. Wolters, Robt. Peebles Sur., 325 ft. S and 500 ft. W of NE cor. of 1,000-ac. tract ..... Derrick.
Humble O. & R. Co.'s No. 3 Gubbels, Samuel Kennedy Sur., 500 ft. N, 1,350 ft. W of SE cor. 190-ac. lease..Drlg. hard sandy lime 3,712 ft.
Humble O. & R. Co.'s No. 4 Gubbels, Samuel Kennedy Sur., 1,400 ft. N, 2,460 ft. W of SE cor. of 100-ac. lease .....Derrick.
Humble O. & R. Co.'s No. 5 Gubbels, Samuel Kennedy Sur., 1,460 ft. N, 1,476 ft. W of SE cor. of 100-ac. tract .....Location.
The Texas Co.'s No. 4 Wolters, Samuel Kennedy Sur., 1,850 ft. N, 300 ft. W of SE cor. of lease .....Drlg. gumbo 2,477 ft.

SUGARLAND—FORT BEND COUNTY

Kolmm Prod. Co.'s No. 1 Peterson, Wm. Littel Sur., 100 ft. SE, 100 ft. SW of NE cor. of tract .....D.S. test 3,737 ft; showed some oil; coring deeper to set screen.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 3 Broussard, M. Dunman Sur., 150 ft. E of center of W line of tract .....Drlg. shale and sand 3,790 ft.
Yount Lee Oil Co.'s No. 30 Cade (W.O.), N. Fitzsimmons Sur. .....T.D. 5,787 ft; sidetracked stuck drill pipe; drilled to sand 5,449 ft; swabbing.
Yount Lee Oil Co.'s No. 33 Cade, N. Fitzsimmons Sur., 3,505 ft. from N line, 1,615 ft. from E line .....Drlg. shale and lime 3,850 ft.
Yount Lee Oil Co.'s No. 1 Mathais fee, 150 ft. from S line, 192 ft. from E line of 23.44-ac. tract in Sarah Reeves Subd., Martin Dunman Sur. ..... Drlg. shale 4,600 ft.
Yount Lee Oil Co.'s No. 14 Smith, Martin Duman Sur., 900 ft. W of No. 12 .....Spudded.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 92 Jorditt, C. F. Jorditt Sur., 200 ft. S of No. 90 .....Drlg. rock 1,401 ft.

SOUR LAKE—HARDIN COUNTY

W. E. McKinney's No. 1 Maco Stewart, S. Jackson Sur., center of 5-ac. tract out of Maco Stewart 50 acres .....Rig.
M. M. Miller's No. 1 Libbie Oil Co., Stephen Jackson Sur., 1,320 ft. NW of Houston Prod. Co.'s No. 1 Merchant .....Derrick.

ARIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 1-Y Ariola fee, 5,610 ft. from W line, 5,610 ft. from N line of Ariola Sur. .....T.D. 5,208 ft; sidetracked 1,282 ft; and drlg. hard sand 4,167 ft.
Houston Oil Co.'s No. 1-Z Ariola fee, 3,000 ft. from W line, 5,610 ft. from N line of Ariola Sur. .....Coring sandy shale 5,588 ft.
Republic Prod. Co.'s No. 3 Ariola fee, Ariola Sur., 660 ft. due S of Gulf's No. 1-A Kirby .....Derrick.

HUMBLE—HARRIS COUNTY

J. D. Clay's No. 5 Bender, R. Dunman Sur., 525 ft. from S line, 203 ft. from E line of 100-ac. tract .....Rig up to pump 1,146 ft.
Sun Oil Co.'s No. 66 River, Robert Dunman Sur., 1,722 ft. from S line, 284 ft. from E line of lease .....Derrick.
Sun Oil Co.'s No. 67 River, Robert Dunman Sur., 1,395 ft. from S line, 374 ft. from E line of lease .....Swabbing 1,367 ft.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 4 Minntex, 165 ft. S, 120 ft. W of NE cor. of Blk. 193, Wm. Lovett Sur. .....Location.
Crown-Framer Oil Co.'s No. 2-A Sladons, Wm. Lovett Sur., 500 ft. E, 100 ft. N of SW cor. of lease ..... Rig.
Leon Wilkerson's No. 1 Irwin, Wm. Lovett Sur., 300 ft. N of Humble's No. 1 Irwin .....Derrick.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Prod. Co.'s No. 36 Taylor, James Hamilton Sur. No. 52, 650 ft. N of S line of survey, 100 ft. W of Rock Drlg. Co.'s No. 2 Hooks .....Drlg. gumbo 1,304 ft.
Rio Bravo Oil Co.'s No. 15-A Settegast (D.D.), Jas. Kopman Sur. .....Drlg. shale 4,419 ft.
Rio Bravo Oil Co.'s No. 26-A Settegast, J. Kopman Sur., 1,210 ft. from N line, 750 ft. from E line of "A" lease .....Sandy shale showing oil 5,449 ft; cmtd. 9⅝-in. csg. 5,446 ft.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 6 Burrell, Wm. Smith Sur., 1,610 ft. N, 300 ft. E of SW cor. of 232-ac. tract .....Pulling screen to deepen 4,954 ft.
Lowrie & Young's No. 1 Junker, Wm. Smith Sur., 125 ft. N, 100 ft. E of Gulf Prod. Co.'s No. 1 Junker in 260-ac. tract .....No report.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 2 Moores Bluff (D.D.), M. Duncan Sur. .....Pulling screen to deepen 2,350 ft.
Cranfill-Reynolds Co.'s No. 10 Moore's Bluff, M. Duncan Sur., 1,500 ft. from E line, 2,100 ft. from N line of 632-ac. tract .....Drlg. shale 6,035 ft.

HULL—LIBERTY COUNTY

Carpenter & Parr's No. 2 Antilley, Jesse Devore Sur., 821 ft. W, 250 ft. S of NE cor. of 20-ac. lease .....Derrick.
Eclipse Oil Co.'s No. 1 Gordon, Jesse Devore Sur., 50 ft. out of NE cor. of Empire 13-ac. lease ..... Rigging.
Empire G. & F. Co.'s No. 34 Barngrover, Jesse Devore Sur., 75 ft. out of SW cor. of lease ..... Shale 5,219 ft; cmtd. 6⅝-in. csg.
Gulf Prod. Co.'s No. 80 Phoenix (D.D.), Jesse Devore Sur. .....Abd. 4,404 ft.
Hannah Oil Co.'s No. 1 Hannah, Jesse Devore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah.....Standing 3,665 ft.
Lynd & Rowe's No. 1 Noble & Lynd, Jesse Devore Sur., 127 ft. out of SE cor. of 5-ac. tract .....No report.
Porter & Baggett's No. 1 Baggett, Jesse Devore Sur., 50 ft. from W line, 50 ft. from S line of 171-ac. tract .....No report.
Republic Prod. Co.'s No. 85-A Dolbear, Jesse Devore Sur., 75 ft. S of No. 85 .....Drlg. 1,620 ft.
Republic Prod. Co.'s No. 148 Dolbear, Jesse Devore Sur., 250 ft. W of No. 139 .....Drlg. 2,375 ft.
D. L. Thibodeaux' No. 2 Taylor, Jesse Devore Sur., 100 ft. N of No. 1 .....Derrick.
Wilson Oil Co.'s (Aberoil Oil Co.) No. 1 Barrow, Jesse Devore Sur., 64 ft. from N line, 700 ft. from E line of 10-ac. tract .....S.D. 4,296 ft.

LIBERTY—LIBERTY COUNTY

J. E. Teddlie's No. 1 Baldwin, Wm. White Sur., 100 ft. W of Navarro Oil Co.'s No. 4 .....Derrick.

CONROE—MONTGOMERY COUNTY

Alpha Oil Co.'s No. 2 Keystone Mills, Lemuel Smith Sur., 456 ft. from S and E lines of 200-ac. tract....Rig.
Alpha Oil Co.'s No. 2 Krohn, S. H. Bryan Sur., 466 ft. from S line in center E and W of 100-ac. tract ....Drlg. shale 965 ft.
Alpha Oil Co.'s No. 1-C South Tex. Dev. Co., T.&N.O. Sur. No. 13, 450 ft. from N line, 350 ft. from W line of 60 acres .....Location.
Amerada Pet. Corp.'s No. 1 South Tex. Dev. Co., C. A. West Sur., 350 ft. from N line, 466 ft. from W line of lease .....Drlg. shale 4,588 ft.

Amerada Pet. Corp.'s No. 2 South Tex. Dev. Co., 466 ft. from S line, 410 ft. from W line of C. A. West Sur. ..... Spudded.
Amerada Pet. Corp.'s No. 3 South Tex. Dev. Co., 909 ft. from W line, 1,005 ft. from S line of C. A. West Sur. ..... Location.
Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from E line in center N and S of 25.8-ac. tract ..... Derrick.
Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from W line in center N and S of 25.8-ac. tract ..... Location.
H. M. Crighton's No. 1-A South Tex. Dev. Co., center of 16-ac. lease in T.&N.O. Sur. No. 5 ..... Location.
Danciger O. & G. Co.'s No. 1 Alexander, John McHorse Sur., center of 18-ac. tract ..... Oil sand 5,094 ft; cmtd. csg.
Faryin Oil Co.'s No. 1 John Rhodes, Wilson Strickland Sur., center of 14.9-ac. tract ..... Rigging.
Faryin Oil Co.'s No. 1 W. F. Stewart, Ransom House Sur., 466 ft. from N and W lines of lease ..... Drlg. sticky shale 3,977 ft.
Faryin Oil Co.'s No. 1 R. Thompson, center of 10-ac. lease (Lots 55 and 58), C. A. West Sur. ..... Location.
Feltex Oil Co.'s No. 1 Kirby Bertrand, 466 ft. from N line of G. W. Wagers Sur. in center of lease east and west ..... Location.
Gem Oil Co.'s No. 1 Ezra Moorehead, John McHorse Sur., center of 5-ac. tract ..... Drlg. shale 710 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 2 Keystone Mills, Ashby James Sur., 1,386 ft E of NW cor., 467 ft. S of N line ..... Drlg. sand and shale 4,931 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 3 Keystone Mills, A. S. James Sur., 2,333 ft. from E line, 466 ft. from N line of Sur. ..... Spudded.
Harrison & Abercrombie's No. 2 Alexander, John McHorse Sur., 964 ft. E of No. 1 or 1,535 ft. from W line and 391 ft. from N line of tract ..... Sand 5,094 ft; cmtd. csg.
Harrison & Abercrombie's No. 4 Alexander, John McHorse Sur., 356 ft. from E line, 425 ft. from S line of lease ..... Location.
Harrison & Abercrombie's No. 5 Alexander, John McHorse Sur., 466 ft. E of E line of Ransom House Sur., and 425 ft. from S line of lease ..... Drlg. shale 1,137 ft.
Harrison & Abercrombie's No. 6 Alexander, John McHorse Sur., 466 ft. from W line, 300 ft. from S line of lease ..... Location.
Harrison & Abercrombie's No. 1 Mrs. Lola McShan, T. M. Wiggins Sur., 466 ft. from N line in center E and W of lease ..... Spudded.
Hooper-Rutherford Oil Co.'s No. 5 Hooper, I.&G.N. Sur., Abst. 649, 415 ft. from S line, 570 ft. from W line of lease ..... Derrick.
Hooper-Rutherford Oil Co.'s No. 4 Hooper, I.&G.N. Sur. No. 649, center of tract E and W and due E offset Houston-Tidal's No. 1 Hooper ..... Derrick.
Houston Oil Co. and Tidal Oil Co.'s No. 3 Cartwright, John Davis Sur., 932 ft. W of No. 2 and 467 ft. from S line ..... Drlg. shale 4,845 ft.
Houston Oil Co.-Tidal Oil Co.'s No. 4 Cartwright, John Davis Sur., 332 ft. from E line, 799 ft. from N line of lease ..... Location.
Houston Oil Co.-Tidal Oil Co.'s No. 5 Cartwright, John Davis Sur., 933 ft. E of No. 1 and 466 ft. from S line of lease ..... Location.
Houston Oil Co.-Tidal Oil Co.'s No. 6 Cartwright, John Davis Sur., 932 ft. E. of No. 5 and 466 ft. from S line of lease ..... Location.
Houston Oil Co. and Tidal Oil Co.'s No. 2 Hamman, C. B. Stewart Sur., 467 ft. out of NE cor. of tract .... Drlg. shale 4,906 ft.
Houston Oil Co.-Tidal Oil Co.'s No. 3 Joe Hamman, C. B. Stewart Sur., 467 ft. from E line, 1,511 ft. from S line of lease ..... Derrick.
Houston Oil Co.-Tidal Oil Co.'s No. 2 W. N. Hooper, Jr., I.&G.N. Sur. No. 11, 400 ft. from S line of lease in center of tract E and W ..... Derrick.
Houston Oil Co.-Tidal Oil Co.'s No. 3 W. N. Hooper, Jr., I.&G.N. Sur. No. 11, 667 ft. S of No. 1 in center of tract E and W ..... Spudded.
Humble O. & R. Co.'s No. 8-A Cartwright, J. Davis Sur., 933 ft. NE of No. 6 ..... Location.
Humble O. & R. Co.'s No. 9-A Cartwright, J. Davis Sur., 1,485 ft. from E line, 466 ft. from S line of lease ..... Drlg. shale and gumbo 934 ft.
Humble O. & R. Co.'s No. 3 Dobbins, Ransom House Sur., 700 ft. S from NW cor. lease and 460 ft. easterly at right angles ..... Comp. 69 bbls. per hr; ⅛-in. choke; 5,088 ft.
Humble O. & R. Co.'s No. 4 Dobbins, Ransom House Sur., 1,064 ft. E of No. 2 and 466 ft. N of S line..... Drlg. hard shale 4,564 ft.
Humble O. & R. Co.'s No. 5 Dobbins, Ransom House Sur., 1,050 ft. E of No. 4 and 350 ft. N of S line of lease ..... Drlg. shale 4,022 ft.
Humble O. & R. Co.'s No. 6 Dobbins, Ransom House Sur., 466 ft. from E and S lines of lease ..... Location.
Humble O. & R. Co.'s No. 1-C Cartwright, John Davis Sur., 550 ft. from S line, 350 ft. from W line of lease ..... Drlg. shale 737 ft.
Humble O. & R. Co.'s No. 2-C Cartwright, John Davis Sur., 550 ft. from S line, 300 ft. from E line of "C" lease ..... Location.
Humble O. & R. Co.'s No. 3-C Cartwright, J. Davis Sur., 1,375 ft. from E line, 466 ft. from S line of lease ..... Location.
Humble O. & R. Co.'s Nos. 1-D Cartwright, John Davis Sur., center of 20-ac. "D" lease ..... Spudded.
Humble O. & R. Co.'s No. 1 Emory, W.C.R.R. Sur., Sec. 13, 466 ft. from S line, 380 ft. from W line ..... Sand showing oil 5,152 ft; cmtd. csg.
Humble O. & R. Co.'s No. 2 Emory, W.C.R.R. Sur., 2,100 ft. from S line, 350 ft. from E line ..... Derrick.
Humble O. & R. Co.'s No. 1-B Hirsch, D. McIntyre Sur., 350 ft. from S line, 450 ft. from W line of "B" lease ..... Spudded.
Humble O. & R. Co.'s No. 2-B Hirsch, D. McIntyre Sur., 450 ft. out of NW cor. "B" lease ..... Location.
Humble O. & R. Co.'s No. 5 Madeley, Ransom House Sur., 960 ft. S of No. 3 ..... Comp. 95 bbls. per hr; ⅛-in. choke; 5,152 ft.
Humble O. & R. Co.'s No. 6 Madeley, Ransom House Sur. ..... Coring sand 5,031 ft.
Humble O. & R. Co.'s No. 7 Madeley, Ransom House Sur., 310 ft. S of N line of survey and direct S offset Violet & Griffith's No. 7 Madeley ..... Rig.
Humble O. & R. Co.'s No. 10 Madeley, Ransom House Sur., 1,718 ft. SE of No. 6 ..... Location.
Humble O. & R. Co.'s No. 12 Madeley, Ransom House Sur., 800 ft. from N line and 1,310 ft. from W line of tract ..... Location.
Humble O & R. Co.'s No. 13 Madeley, Ransom House Sur., 1,100 ft. SE of No. 6 ..... Location.
Humble O. & R. Co.'s No. 3 McDonald, John Davis Sur., 466 ft. N of S line of lease and direct N offset Hamilton et al's No. 2 Moorehead ..... Spudded.
Humble O. & R. Co.'s No. 1 Moore, Lemuel Smith Sur., approx. 1,325 ft. southwesterly along SE line from SE cor. and 466 ft. northwesterly at right angles... Sand 5,053 ft; cmtd. csg.
Humble O. & R. Co.'s No. 2 Moore, Lemuel Smith Sur., 1,398 ft. northerly and 466 ft. easterly at right angles from SW cor. ..... Coring sand and shale 5,131 ft.
Humble O. & R. Co.'s No. 3 H. N. Moore, Lemuel Smith Sur., 466 ft. from E line, 1,065 ft. from S line of survey ..... Drlg. shale 973 ft.

Humble O. & R. Co.'s No. 4 Moore, Lemuel Smith Sur., 900 ft. N of No. 2 ..... Location.
Humble O. & R. Co.'s No. 5 Moore, Lemuel Smith Sur., 933 ft. S of No. 2 ..... Location.
Humble O. & R. Co.'s No. 24 South Tex. Dev. Co., Theo. Slade Sur., 1,520 ft. W. 765 ft. S of NE cor. of survey ..... Comp. 90 bbls. per hr; ¼-in. choke, 5,171 ft.
Humble O. & R. Co.'s No. 28 South Tex. Dev. Co., 1,450 ft. from S line, 900 ft. from W line of T. C. Howell Sur. ..... Location.
Humble O. & R. Co.'s No. 29 South Tex. Dev. Co., 1,900 ft. from S line, 1,300 ft. from E line of T. C. Howell Sur. ..... Location.
Humble O. & R. Co.'s No. 30 South Tex. Dev. Co., 466 ft. N of S line Theo. Slade Sur., north offset Tidal Oil Co.'s No. 2 Lewis ..... Comp. 123 bbls. per hr.; ½-in. choke, 5,158 ft.
Humble O. & R. Co.'s No. 31 South Tex. Dev. Co., 350 ft. N of S line Theo. Slade Sur., N offset Tidal Oil Co.'s No. 4 Lewis ..... Set screen 5,177 ft.
Humble O. & R. Co.'s No. 32 South Tex. Dev. Co., 1,300 ft. from S line, 4,300 ft. from E line of Theo. Slade Sur. ..... Location.
Humble O. & R. Co.'s No. 33 South Tex. Dev. Co., 1,300 ft. from S line, 4,000 ft. from E line of Theo. Slade Sur. ..... Location.
Humble O. & R. Co.'s No. 34 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 33 ..... Location.
Humble O. & R. Co.'s No. 35 South Tex. Dev. Co., Theo. Slade Sur., 1,095 ft. NE of No. 34 ..... Location.
Humble O. & R. Co.'s No. 36 South Tex. Dev. Co., Theo. Slade Sur., 1,010 ft. NE of No. 35 ..... Location.
Humble O. & R. Co.'s No. 37 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 36 ..... Location.
Humble O. & R. Co.'s No. 1-B South Tex. Dev. Co., C. T. Darby Sur., 450 ft. W of E line of survey, due W offset No. 1-A Hirsch ..... Comp. 109 bbls. per hr.; ⅛-in. choke, 5,191 ft.
Humble O. & R. Co.'s No. 2-B South Tex. Dev. Co., C. T. Darby Sur., due W offset No. 2 Emory ..... Drlg. shale 4,296 ft.
Humble O. & R. Co.'s No. 1 Sullivan State Land, center of State land tract and due S offset Humble's No. 39 South Tex. Dev. Co. ..... Drlg. shale 936 ft.
Humble O. & R. Co.'s No. 1 Mrs. L. Wiggins (23 acres), L. Smith Sur., 466 ft. from N and W lines of lease.. Location.
Humble O. & R. Co.'s No. 1 Williams, Lemuel Smith Sur., center of 46-ac. tract ..... Drlg. sticky shale 956 ft.
Humble O. & R. Co.'s No. 1-D Alexander, John McHorse Sur., 577 ft. E of W line in center N and S of 20-ac. "D" lease ..... Comp. 120 bbls. per hr.; ½-in. choke, 5,060 ft.
Navarro Oil Co.'s No. 1 Gallemore, John Davis Sur., 280 ft. from N line, 180 ft. from E line of tract ..... Comp. estimated 800 bbls.; ½-in. choke, 5,125 ft.
Navarro Oil Co.'s No. 1 Perry heirs, C. M. Wiggins Sur., 466 ft. from W line of lease in center N and S.. Spudded.
Neversuch Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 466 ft. from S line in center E and W of 90 acres ..... Sand and shale 5,088 ft; cmtd. csg
North Star Oil Co.'s No. 1 Crestwood, T.&N.O. Sur. 15, 466 ft. from S and W line of 77-ac. tract ..... Location.
Pat Rutherford's No. 1 Keystone Mills, Lemuel Smith Sur., 466 ft. from E line of 60-ac. lease in center N and S ..... Drlg. sand and boulders 409 ft.
Showers & Moncrief's No. 1 Dunn, Wilson Strickland Sur., 466 ft. from N line, 350 ft. from E line ..... Drlg. sticky shale 4,481 ft.
Showers & Moncrief's No. 2 Dunn, Wilson Strickland Sur., 900 ft. S of No. 1 ..... Location.
Showers & Moncrief's No. 3 Dunn, Wilson Strickland Sur., 990 ft. S of No. 2 ..... Location.
South Gulf Oil Co.'s No. 1 E. M. Rauh, T.&N.O. Sur. 5, 338 ft. from E line of 20-ac. lease in center of N and S ..... Location.
Southland Oil Co.'s No. 2 Cummings, Wilson Strickland Sur., 466 ft. from E line of survey, 934 ft. SE of No. 1 ..... Coring sand showing oil 5,040 ft.
Southland Oil Co.'s No. 3 Cummings, Wilson Strickland Sur., 990 ft. S of No. 2 ..... Drlg. shale 4,324 ft.
Standard Oil Co. of Kansas' No. 1 Madeley, Ransom House Sur., 466 ft. S of N line, 465 ft. W of E of lease ..... Drlg. plug 5,119 ft.
Standard Oil Co. of Kansas' No. 2 Madeley, Ransom House Sur., 932 ft. S of No. 1 ..... Derrick.
Standard Oil Co. of Kansas' No. 1 Smith & Ratcliffe, lower W. S. Rhodes Sur., 466 ft. from N line, 1,066 ft. from E line ..... Location.
Standard Oil Co. of Kansas' No. 2 Smith & Ratcliffe, 1,065 ft. NW along SW line from SW cor. of lower W. S. Rhodes Sur., 460 ft. northeasterly at right angles ..... Coring sand 5,022 ft.
C. C. Steinberger's No. 2 South Tex. Dev. Co., T.&N.O. Sur., Abst. 568, 1,100 ft. from S line in center E and W of 25-ac. tract ..... Spudded.
Steinberger, Brown & Wheeler's No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, center of S 20 acres of 50-ac. lease ..... Cmtd. csg. 5,033 ft.
Strake Pet., Inc.'s No. 1 Keystone Mills, Lemuel Smith Sur., 1,200 ft. southward along W line of Alpha 200-ac. lease from NW cor. and 466 ft. W at right angles ..... Derrick.
Strake Pet., Inc.'s No. 1 Elisabeth Moody, C. B. Stewart Sur., 1,400 ft. from S line and 467 ft. from E line of 726-ac. tract ..... Location.
Sun Oil Co.'s No. 1 Keystone Mills, 466 ft. from N and E lines of John Bricker Sur. ..... Spudded.
Sun Oil Co.'s No. 1 W. S. Stewart, 466 ft. from S and E lines of J. M. Real Sur. ..... Rig.
The Texas Co.'s No. 1 H. M. Dudley, C. B. Stewart Sur., 466 ft. S 15 deg. E, 466 ft. S 75 deg. W from NE cor. of lease ..... Drlg. sand 1,311 ft.
The Texas Co.'s No. 4 Moody, Ransom House Sur., 1,064 ft. E of No. 1 and 466 ft. S of N line ..... Comp. 60 bbls. per hr.; ⅜-in. choke, 5,100 ft.
The Texas Co.'s No. 5 Moody, Ransom House Sur., 1,549 ft. from E line and 466 ft. from N line of lease.... Sand 5,001 ft; cmtd. 7-in. csg. 4,998 ft.
The Texas Co.'s No. 6 Moody, Ransom House Sur., 466 ft. from E line and 466 ft. from N line of lease..... Drlg. shale 3,901 ft.
The Texas Co.'s No. 7 Moody, Ransom House Sur., 1,306 ft. from N line and 466 ft. from E line of lease.... Spudded.
The Texas Co.'s No. 8 Moody, Ransom House Sur., 2,330 ft. from N line and 466 ft. from W line of lease.... Comp. 1,500 bbls. daily; ⅝-in. choke 5,100 ft.
The Texas Co.'s No. 9 Moody, S 60 deg. W 3,879 ft., N 30 deg. W 254 ft. from SE cor. of Ransom House Sur. ..... Drlg. rock 740 ft.
The Texas Co.'s No. 10 Moody, 3,030 ft. from E line, 600 ft. from S line of Ransom House Sur. ..... Location.
The Texas Co.'s No. 11 Moody, Ransom House Sur., S 75 deg. W 466 ft. and S 15 deg. E 285 ft. from SE cor. Wilson Strickland Sur. ..... Drlg. stick shale 3,766 ft.
The Texas Co.'s No. 13 Moody, 2,180 ft. from E line, 466 ft. from S line of Ransom House Sur. ..... Location.
The Texas Co.'s No. 14 Moody, 1,330 ft. from E line, 466 ft. from S line of R ansom House Sur. ..... Rigging up.
The Texas Co.'s No. 16 Moody, 1,353 ft. SW along S line of Wilson Strickland Sur. from SE cor. and 466 ft. S at right angles in Ransom House Sur. .... Location.
The Texas Co.'s No. 2 Rhodes, 979 ft. 15 deg. W. 466 ft. N 75 deg. E of SW cor. of W. S. Rhodes Sur. .... Location.

The Texas Co.'s No. 3 Rhodes, Rhodes Sur., 1,854 ft. N 15 deg. W and 466 ft. N 75 deg. E of SW cor. of survey ..... Derrick.
The Texas Co.'s No. 4 Rhodes, 2,786 ft. N 15 deg. W and 478 ft. N 75 deg. E from SW cor. of Rhodes Sur.. Drlg. shale 4,018 ft.
The Texas Co.'s No. 5 W. S. Rhodes, 466 ft. S of SW cor. of C. T. Darby Sur., and 350 ft. at right angles in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 6 Rhodes, 2,000 ft. W of E line of lease and 466 ft. S of S line of C. A. West Sur. in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 7 Rhodes, 1,210 ft. from E line of lease and 330 ft. S of S line of C. A. West Sur. in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 8 Rhodes, 330 ft. S of S line of C. A. West Sur., and 330 ft. W of W line of John Massey Sur. in W. S. Rhodes Sur. ..... Location.
Harvey Thornton's No. 1 John Rhodes, Ransom House Sur., center of 3.39-ac. tract ..... Drlg. sand 1,397 ft.
Tidal Oil Co.'s No. 2 Freeman, John Davis Sur., 1,344 ft. from S line, 332 ft. from W line of 36 acres .... Spudded.
Tidal Oil Co.'s No. 3 Lewis, C. B. Stewart Sur., 1,500 ft. from N line, 466 ft. from E line of lease ..... Sand 5,066 ft; cmtd. csg.
Tidal Oil Co.'s No. 4 Lewis, C. B. Stewart Sur., 2,350 ft. from W line, 450 ft. from N line of lease ..... Sand 5,147 ft; cmtd. csg.
Tidal Oil Co.'s No. 5 Lewis, C. B. Stewart Sur., 1,440 ft. from W line, 467 ft. from N line of tract ..... Drlg. shale 4,733 ft.
Tidal Oil Co.'s No. 6 Lewis, C. B. Stewart Sur., 2,592 ft. from N line, 467 ft. from W line of tract ..... Drlg. stick shale 4,116 ft.
Tidal Oil Co.'s No. 7 Lewis, C. B. Stewart Sur., 3,038 ft. from N line, 467 ft. from E line of tract ..... Drlg. shale 3,919 ft.
Tidal Oil Co.'s No. 8 Lewis, C. B. Stewart Sur., 2,323 ft. from N line, 2,333 ft. from W line of tract ..... Drlg. shale 4,153 ft.
Tidal Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 330 ft. from E line, 577 ft. from S line of lease ..... Drlg. shale 308 ft.
Tidal Oil Co.'s No. 2 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 330 ft. from E line, 467 ft. from N line of lease ..... Spudded.
Tidal Oil Co.-Republic Prod. Co.'s No. 3 South Tex. Dev. Co., T.&N.O. Sur. 15, 330 ft. from E line, 466 ft. from N line of lease ..... Location.
Violet & Griffith's No. 5 Mrs. Fannie Hooper, M. DeMoss Sur., E offset Humble's No. 1 Pioefflin, C of tract... Drlg. plug 5,156 ft.
Violet & Griffith's No. 7 Mrs. Fannie Hooper, M. DeMoss Sur., C of tract, E offset Showers & Moncrief's No. 1 Dunn ..... Comp. 95 bbls. per hr.; ½-in. choke, 5,100 ft.

MARKHAM—MATAGORDA COUNTY

Powers Prod. Co.'s No. 1 Meyers, 100 ft. N, 535 ft. W of SE cor. of Blk. 1, Wm. Hadden Sur. ..... Drlg. gumbo 2,446 ft.

PORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 4 Stark, 675 ft. E, 340 ft. N of SW cor. Marshall Beauchamp Sur. ..... Rigging up.

CLAY CREEK—WASHINGTON COUNTY

Clay Creek Oil Co.'s No. 2 Bimage, J. F. Perry Sur., 1,000 ft. from S line, 150 ft. from E line of survey.. No report.
Sun Oil Co.'s No. 1 A. Schulte, J. F. Perry Sur., 294 ft. from NE line, 300 ft. from SE line of tract ..... T.D. 1,744 ft; reaming.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Olympic Oil Co.'s No. 1 Luckett, 1,150 ft. S, 75 ft. W of NE cor. Sec. 42-9s-2w ..... Standing 1,773 ft.
Phillips & Artigue's No. 3 Cruse (W.O.), 85 ft. from E line, 60 ft. from N line of tract in Sec. 47-9s-2w.... Standing 1,862 ft.
Yount Lee Oil Co.'s No. 11 Housierre-Latriello, 1,010 ft. N, 5,050 ft. S of SW cor. Sec. 47-9s-2w ..... Drlg. hard sand 7,745 ft.

DARROW—ASCENSION PARISH

Rio Bravo Oil Co.'s No. 2 Community, Sec. 31-10s-2e, 1,760 ft. S, 400 ft. W of No. 1 ..... Rig.
Rio Bravo Oil Co.'s No. 1 Gumbel, 4,000 ft. W, 250 ft. S of NE cor. of S. Gumbel & Co. tract, Sec. 33-10s-2e.. Drlg. sand 3,796 ft.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 23 United Land Co. 5,760 ft. N, 1,340 ft. W of SE cor. Sec. 15-10s-4e ..... Salt 4,908-29 ft; sidetracked to 4,-992 ft; abd.
Union Sulphur Co.'s No. 23 United Land Co., Sec. 15-10s-4e, 200 ft. N and 90 ft. W of No. 3 ..... Location.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Shell Pet. Corp.'s No. 3 Fontenot, Sec. 7-9s-6w, direct E offset Magnolia's No. 2 Waite ..... Drlg. shale and lime 5,302 ft.

LOCKPORT—CALCASIEU PARISH

Lockport Oil Co.'s No. 1 Phoenix ..... D.S. stuck 1,300 ft; standing.
Magnolia Pet. Co.'s No. 10 Bordages, Sec. 3-10s-9w, 1,-001 ft. E, 338 ft. N of SW cor. of lease ..... Drlg. gumbo 4,223 ft.
Magnolia Pet. Co.'s No. 6-A Farquahar, 1,030 ft. E, 150 ft. N of center of Sec. 3-10s-9w ..... Sand 6,454-61 ft; set 1 joint of screen.
Union Sulphur Co.'s No. 4 Martha Moss, Sec. 3-10s-9w... Set 1 joint of screen 4,851 ft; comp. flowing 2,130 bbls. P.L. oil; ½-in. choke; 600 lbs.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 779 fee, 392 ft. S, 1,243 ft. W of center Section 29-9s-10w ..... Salt 5,622-5,981 ft; T.A.
Union Sulphur Co.'s No. 771 fee (D.D.), 421 ft. S and 340 ft. W of center of Sec. 29-9s-10w ..... Drlg. sandy shale 5,168 ft.
Union Sulphur Co.'s No. 773 fee, Sec. 29-9s-10w ..... Sand 5,640 ft; T.A.
Union Sulphur Co.'s No. 776 fee, 135 ft. S, 1,490 ft. W of center Sec. 29-9s-10w ..... Drlg. gumbo 3,735 ft.

VINTON—CALCASIEU PARISH

Wilson-Broach's No. 9 Wilson, Sec. 33-10s-12w, 200 ft. N of No. 8 and 28 ft. E of W line of Strip 7 ..... Set 30 ft. of 4½-in. screen 3,481 ft; bailing.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 3 Alliance Trust Co., 699 ft. from N line, 1,466 ft. from W line of Sec. 24-11s-1w ..... T.D. 4,717 ft; D.S. stuck.
Pure Oil Co.'s No. 2 Mulvey, Sec. 34-11s-1w, 1,515 ft. from N line, 1,150 ft. from E line of tract ..... Drlg. wtr. sand 3,953 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 25 Watkins (D.D.), 112 ft. N and 2,795 ft. W of SE cor. of Sec. 12-12s-10w ..... Pulled screen to deepen 2,854 ft.
Wilfred Lahaye's No. 1 Olevia, Sec. 36-12s-10w, in 2-ac. tract ..... Spudded and S.D.
Jim Oil Co.'s No. 11 Irwin, Sec. 13-12s-10w, 500 ft. N, 78 ft. W of No. 6 ..... No report.
Lackawanna Oil Co.'s No. 1 Eilender, 320 ft. S, 150 ft. E of NW cor. SE SE Sec. 21-12s-10w ..... Derrick.
Mascert & Cruse's No. 1 J. B. Duhon, 656 ft. S, 325 ft. E of NW cor. Sec. 36-12s-10w ..... Derrick.
The Texas Co.'s No. 10-B State, 1,000 ft. E, 300 ft. N of NE cor. Sec. 12-12s-10w ..... Building derrick.
The Texas Co.'s No. 11-B State, 1,000 ft. E, 600 ft. N of NE cor. Sec. 12-12s-10w ..... Location.
Union Sulphur Co.'s No. 2 Gulf Land-Pure lease, 1,968 ft. N, 200 ft. W of SE cor. Sec. 11-12s-10w ..... Drlg. hard sand 8,074 ft.
Yount Lee Oil Co.'s No. 12 School Land, Sec. 15-12s-10w, 300 ft. S of No. 11 ..... Drlg. hard sand 3,235 ft.

PORT BARRE—ST. LANDRY PARISH

Port Barre Oil Co.'s No. 1 Sibille (W.O.), Sec. 36-6s-5e, 400 ft. S, 134 ft. E of NW cor. of 36-ac. tract.... Set screen 3,448 ft; comp. flowing 1,000 bbls. fluid, 30% wtr.
The Texas Co.'s No. 13 Botney Bay, Sec. 4-4s-5e, 185 ft. W of E line of lease and direct offset Gulf's No. 2 Wilson-Cockran ..... Rigging up.

CHOCTAW—IBERVILLE PARISH

Standard Oil Co.'s No. 2 Gay, 530 ft. S, 200 ft. E of center Sec. 12-9s-11e ..... Drlg. 2,010 ft.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 6 Wilbert, Sec. 9-11s-12e, 300 ft. out from No. 5 ..... Drlg. sandy shale 5,422 ft

CAMERON MEADOWS—CAMERON PARISH

Magnolia Pet. Co.'s No. 3 Cameron Meadows, 3,620 ft. S, 1,900 ft. W of NE cor. Sec. 21-14s-13w ..... Drlg. sand rock 4,475 ft.

LEESVILLE—LA FOURCHE PARISH

The Texas Co.'s No. 6 L.L.&E., Sec. 26-21s-23e..... No report.

STARKS—CALCASIEU PARISH

Emerson & Stark's No. 2 Industrial, 400 ft. S of No. 1, in SE cor. NE NW Sec. 30-9s-12w ..... Bailed dry 4,712 ft; pulling screen.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 12-13s-8w, 800 ft. S 66 deg. 42 min. from No. 9 ..... Hard sandy lime 4,785 ft; cmtd. 13⅜-in. csg. 4,763 ft; drlg. plug.

TEXAS

MISCELLANEOUS WILDCATS

AUSTIN COUNTY

Bunte, Inc.'s No. 1 Dittert, M. N, Allen Sur., 200 ft. SW, 300 ft. NW from W cor. of Henry Vornkahl 16 acres ..... Gumbo 913 ft; cmtd. 10-in. csg. 235 ft.
Great Southern Oil Co.'s No. 1 Schevojas, 329 ft. N, 78 deg. E of N cor. B. Dottery Sur. ..... Drlg. shale and lime 2,922 ft.
Sun Oil Co.'s No. 1 R. W. Thouman, Juan DeLeon Sur., 900 ft. S of N line, 924 ft. E of W line of 125-ac. lease ..... Drlg. sand and shale 3,896 ft.
Tibbett et al's No. 1 Heidman, 4,320 ft. SW along NW line from most northerly corner of A. Larrison Sur., thence 405 ft. NW at right angles ..... Derrick.

BRAZORIA COUNTY

John Deering's No. 1 C. W. Chapman, 924 ft. from S line, 104 ft. from E line of Lot 2, Andrew Robinson Sur. ..... Sand rock 5,788 ft; standing.
Gulf Prod. Co.'s No. 1-B H. P. Lockwood, Wiley Martin Sur. No. 9, 2,624 varas S. 45 deg. W along SE line of Lockwood's 536-ac. tract from E cor., thence 241 varas NW at right angles from said line ..... Dry and abd. 7,404 ft.
A. D. Parsons et al's No. 1 Hughes, 1,500 varas, NE from W cor. along NW line of A. L. D. Lewis Sur., 200 varas SE at right angles in Hughes' 320-ac. tract ..... T.A. 4,255 ft.
Tri-fin Oil Co.'s No. 1 Moers, 1,838 ft. SW of Chocolate Bayou, 693 ft. SE of NW line of F. Moore Sur. .... Washing to bottom 3,070 ft.

BURLESON COUNTY

Ball & Knob's No. 1 Polansky, M. B. Lawrence Sur., 359 ft. from E line, 469 ft. from N line of 158-ac. tract ..... No report.
Sampson O. & G. Co.'s No. 3 Duckworth & Gilley, P. Singleton Sur., 50 ft. SE of No. 1 ..... No report.
J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 81 ft. SW, 4,340 ft. SE of S cor. of Joseph Henson Sur. ..... Gumbo 600 ft; standing.

CHAMBERS COUNTY

Weaver-Ray's No. 1 Fisher, John Tjams Sur., 210 ft. S of Rucker et al's No. 1 Fisher ..... S.D. 2,400 ft.
Yount Lee Oil Co.'s No. 1 Plummer, H.&T.C. Sur. No. 38, 2,240 ft. from N line, 2,640 ft. from W line of section ..... Drlg. shale 7,012 ft.

COLORADO COUNTY

Danciger O. & G. Co. and L. E. Hults' No. 1 C. L. Raver, B.B.B.&C. Sur., Sec. 1, 990 ft. out of SW cor. of 477-ac. tract ..... Derrick.
Humble O. & R. Co.'s No. 1 John McShane, L&G.N. Sur., Sec. 42, 466 ft. out of NE cor of tract ..... Derrick.
Pilot Oil Co.'s No. 1 Tate, Cooke & DeWeese Sur., 150 ft. NE, 50 ft. NW of S cor. of survey ..... S.D. 1,540 ft.

FORT BEND COUNTY

Lowrie & Young's No. 1 Jackson Brown, Pilant Lake, Wm. Barrett & Abner Harris Sur., 152 ft. E, 158 ft. N out of SE cor. Humble 182-ac. Brown lease in D. Hale 548-ac. tract ..... Drlg. hard shale and lime 4,602 ft.
Lynch et al's No. 1 Knelts, 690 ft. from NW line, 350 ft. from SW line of Sec. 43, H.&T.C. Sur. ..... S.D. for repairs 672 ft.
Naylor & DeCosta's No. 1 Naylor, 6,350 ft. N, 55 deg. E from SW cor. 652-ac. tract in Christman Sur. .... T.D. 7,014 ft; standing.

GALVESTON COUNTY

Humble O. & R. Co.'s No. 1 Rosenkranz, Green's Bayou, center N½ of Lot 10, Sarah White Sur. ..... T.D. 7,119 ft; milling out of csg. 6,627 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur. ..... Standing 2,689 ft.
W. J. Brightwell's No. 1 Combs, Samuel Beauman Sur., 850 ft. from S line, 622 ft. E of extreme W line of 276-ac. tract ..... Standing 5,250 ft.
Terrell & Clay's No. 1 D. M. Howard, T. Jones Sur., 450 ft. from E line, 750 ft. from S line of lease ..... Location.

HARDIN COUNTY

Joe E. Proctor's No. 1 Russell & Teague, 3,650 ft. E, 2,-777 ft. N of NW cor. of Wm. W. Young Sur. ..... T.D. 2,685 ft; hole heaved in.
Robichaux et al's No. 1 Kirby Lbr. Co., 4,167 ft. W, 2,500 ft. N of SE cor. of Ben Hawkins Sur. ..... S.D. 3,900 ft.

HARRIS COUNTY

T. V. Buckholve & Sons' No. 1 Miller, Arthur McCormick Sur. ..... S.D. 1,310 ft.
Cherry & Pritchard's No. 1 Dr. Griffith, S. Bell Sur., 552 ft. from E line, 40 ft. from N line of 250-ac. tract ..... T.D. 756 ft; cmtd. 10-in. 650 ft.
John Deering et al's No. 2 Warren, T. Snell Sur., 100 ft. SW of No. 1 ..... Drlg. gumbo 1,526 ft.

JASPER COUNTY

Smitherman, Neilson & Noble's No. 1 Cameron, Wm. Jones Sur., 400 ft. S 45 deg. W of SW cor. of J. W. Allen 300-ac. tract ..... Drlg. gumbo 1,000 ft.

JEFFERSON COUNTY

Carroll & Miller's No. 1 C. A. Mashman, W. B. Dyches Sur., 462 ft. W of highway and 105 ft. S of NE line of 13-ac. tract ..... Derrick.
Coastal Oil Co.'s No. 1 Young, 350 ft. from E line, 160 ft. from S line of 40-ac. tract, in Blk. F-5, Lot 6, Joseph Grigsby Sur. ..... Drlg. sand and shale 3,612 ft.
Jack Schultz' No. 2 Todd, Cheek, 1,800 ft. S of No. 1 and 130 ft. E of W line of Wm. Carr Sur. ..... Shale 7,000 ft; S.D. to change rigs.

LIBERTY COUNTY

Leon Brisley's No. 1 J. M. Neal, Edward Tanner Sur., 1,800 ft. E, 1,800 ft. N of most westerly NW cor. of Margaret Evans Sur. ..... Abd. 2,768 ft.
Mayes et al's No. 1 Dunman, J. C. Martin Sur., 1,111 ft. from S line of survey and 2,340 ft. W of Trinity River ..... Spudded and S.D.
James Papadakis' No. 1 Ecke, Reason Green Sur., 300 ft. from W line of 300-ac. tract in center N and S... Spudded and S.D.

MATAGORDA COUNTY

Cockburn Oil Corp.'s No. 5 Hawkins, Shepherds Mott, 2,200 ft. SE, 1,800 ft. NE of W cor. Daniel McCarthy Sur. ..... Drlg. lime rock 4,856 ft.
Dr. Griffith et al's No. 2 Baer, Big Hill, 5,000 ft. N, 2,000 ft. E from SW cor. of Seth Ingram Sur. ..... Standing 2,730 ft.
Humble O. & R. Co.'s No. 1 Pierce Est., Isaac Foster Sur., 320 ft. from N line, 320 ft. from E line of tract ..... Drlg. shale and lime 5,642 ft.
Rugeley et al's No. 1 Cleveland, E. Hall Sur., 450 ft. E of Cottonwood Creek and 300 ft. N of S line of 40-acre tract ..... No report.
R. L. Sprinkle et al's No. 1 Turner, 4,000 ft. from NE line, 3,500 ft. from SE line of M. Cummings Sur. ... Rig.
United North & South Dev. Co.'s No. 2 Stoddard, 25 ft. each way out of NW cor. of Lot 19, Buckeye Townsite ..... Rig.
United North & South Dev. Co.'s No. 1 St. L. & B. M. "Y," 200 ft. S of main line of RR and 200 ft. NE of SW fork of "Y" in townsite, J. C. Keller Sur. ... Drlg. fresh wtr. sand 5,345 ft.

MONTGOMERY COUNTY

A. H. Parsons et al's No. 2 Drought, Kronknite Sur., 3,000 ft. N, 100 ft. E of NW cor. of A. B. Hill 46½ acres ..... T.A. 3,003 ft.

Continental Oil Co. and Julius Fohs' No. 1 Rock Creek Lbr. Co., J. Foster Sur., 1,866 ft. S and W out of NE cor. of 168-ac. lease ..... Gumbo 1,342 ft; cmtd. 10-in. csg. on bottom.

Mound Creek Oil Co.'s No. 1 Sealey, 3,751 ft. E and 5,033 ft. N, from SW cor. of M. Cartwright Sur. in John Sealey Sur. ..... Derrick.

Rheubotham et al's No. 1 A. H. Sails, Wm. Barker Sur., 390 ft. from E line, 400 ft. from N line of W 36 acres of Sails tract ..... S.D. 910 ft.

R. L. Sprinkle's No. 1 Rohlfs, 500 ft. out of SW cor. of H. Proneus Sur. ..... Rigging up.

Sutton-Hawkins' No. 1 Foster, Hosea de la Garza Sur., 2,333 ft. N, 1,320 ft. E of NE cor. of W. J. Johnson 100-ac. tract ..... Standing 3,852 ft.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line, 500 ft. from N line of tract ..... Drlg. shale 2,240 ft.

POLK COUNTY

Anderson et al's No. 1 Duke, Peter J. Manard Sur., 330 ft. out of NW cor. of 235-ac. tract ..... S.D. 3,948 ft.

Koch & Stevens' No. 1 Ruth Lawrence, Castallian Sur., 300 ft. from W line, 790 ft. from S line of 54-ac. tract ..... S.D. 2,600 ft.

Tony & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur. ..... S.D. 4,225 ft.

Dick Schwabb and Shell Pet. Corp.'s No. 2 Davis & Holmes, A. Viesca Sur., 485 ft. N, 376 ft. W of NE cor. of J. Duff 35 acres ..... T.D. 4,438 ft; pulling screen to plug back from 4,413 ft. to point in csg.

REFUGIO COUNTY

Gulf Prod. Co.'s No. 2 J. O'Connor (W.O.), C.E.P.I.&M. Co. Sur. No. 40, 1,200 varas from S line, 1,500 varas from E line of tract ..... Drlg. shale 6,025 ft.

Gulf Prod. Co.'s No. 3 O'Connor, C.E.P.I.&M. Co. Sur., No. 133, 6,225 ft. SW along SE line from NE cor. of John O'Connor land, thence 2,639 ft. NW at right angles ..... Derrick.

Humble O. & R. Co.'s No. 3 O'Connor, Florentine Rice Sur., 13,767 ft. from S line at right angles, 3,412 ft. from E line at right angles of 5,545-ac. ranch ..... Drlg. sand 4,710 ft.

SAN JACINTO COUNTY

Weaver et al's No. 1 Delta Land & Timber Co., 1,400 ft. NE of SW line of James W. Robertson Sur., and 800 ft. at right angles ..... No report.

TRINITY COUNTY

C. M. Beckner's No. 1 Gibson, Wm. Beasley Sur., 600 ft. S along E line of survey and 150 ft. W at right angles ..... T.D. 1,192 ft; plugged to 999 ft.

South Gulf Oil Co.'s No. 1 Trinity Lbr. Co., 290 varas from N line, 650 varas from E line of Sec. 17, H.&T.C. Sur. ..... Location.

TYLER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sam Jeffcoat, E. Thompson Sur., 467 ft. N and E from SW cor. of 100-ac. tract ..... Derrick.

Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby, E. Thompson Sur., 467 ft. N and E from NE cor. of Sam Jeffcoat 100 acres ..... Derrick.

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sterne fee (W.O.), 3,334 ft. from W line and 484 ft. from N line of Adolphe Sterne Sur. ..... S.W. sand 5,619 ft; plugged to 4,587 ft; D.S. test 500 lbs. dry gas in 5 min.

Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby-McShane, 467 ft. S and W of most northerly NE cor., B.B.B.&C. Sur. No. 17 ..... Rig.

VICTORIA COUNTY

Gulf Prod. Co.'s No. 3 Keeran Ranch, Martin DeLeon Sur., 1,320 ft. NW of No. 1 ..... Drlg. blue shale 5,916 ft.

Slick-Seeligson Corp.'s No. 2 McFaddin (D.D.), J. Varian Sur., 1,100 ft. NE of SW line, 635 ft. E of railroad.. T.D. 6,810 ft; plugged to 4,800 ft; drilled to 6,454 ft; D.S. stuck; plugged to 4,500 ft.

The Texas Co.'s No. 5 McFaddin, 1,300 ft. westerly, 300 ft. northerly at right angles from SE cor. of J. A. McFaddin 98-ac. tract ..... D.S. test 4,154-74 ft; dry.

Quintana Oil Co.'s No. 1 McCormic, 500 ft. from SW line, 500 ft. from NW line of S.A.&M.G. Sur., Sec. 3, in most westerly NW cor. ..... Spudded.

Union Oil Co.'s No. 2 Keeran, Martin DeLeon Sur., 500 ft. E of E line of Gulf lease and 1,900 ft. N of railroad ..... Sand and shale 6,077-90 ft; D.S. test 5 joints mud and oil (40%) 350 lbs. pressure; ¾ and ¼-in. chokes; 7 min.

WALKER COUNTY

Pine Oil Co.'s No. 1 Smithers, Stephen Manning Sur., 700 ft. SW, 850 ft. SE of NE cor. of 264-ac. tract.... Drlg. sticky shale 3,566 ft.

WALLER COUNTY

Birdwell et al's No. 1 Robertson, John Baker Sur., 1,625 ft. from S line, 450 ft. from W line of 64-ac. tract ..... Derrick.

Hobson et al's No. 1 Joe W. Harris, 3,000 ft. from E line, 5,000 ft. from N line of H.&T.C. Sur. in Harris 1,475-ac. lease in Justo Liendo Sur. ..... Standing 4,954 ft.

WASHINGTON COUNTY

Yequa Oil Co.'s No. 18 Pomacal, S. M. Williams Sur., 1,232 ft. from W cor. of Shuis 44-ac. tract, thence 123 ft. NW at right angles ..... T.D. 1,515 ft.

WHARTON COUNTY

Cullen & West's No. 1 Hawes, G. W. Singleton Sur., 550 ft. NE, 320 ft. SE of W cor. of Hawes, 148-ac. tract ..... Dry and abd. 6,686 ft.

Dayvault-Tyler-Gardner's No. 1 Dayvault, Wm. Kincheloe Sur., 300 ft. SW, 600 ft. SE of N cor. of 298-ac. tract ..... Drlg. shale 3,322 ft.

Pure Oil Co.'s No. 1 Stewart, 2,419 ft. NW, 1,650 ft. NE of S cor. of Sec. 25, Morris & Cummings Sur. ..... Drlg. gumbo 1,227 ft.

Smith & Daniels' No. 1 Mitchell, H.&T.C. Sur. No. 8, 330 ft. from NE line of NE 80-ac. tract in center of tract NW and SE ..... Shale 6,442 ft; cmtd. 7-in. csg. 6,279 ft.

Steed Prod. Co.'s No. 1 Tucker, 210 ft. W, 50 ft. N of NE cor. of S½ of SW¼ of Sec. 58, E.T.R.R. Sur. .... Drlg. gumbo 1,204 ft.

SOUTH LOUISIANA

BEAUREGARD PARISH

DeRidder Dev. Co.'s No. 1 McMahon, 200 ft. W, 166 ft. S of NE cor. of NW Sec. 33-2s-9w ..... Standing 1,286 ft.

CALCASIEU PARISH

Cannon & Hughes' No. 1 J. S. Reed, Sec. 18-10s-12w..... Derrick.

I. R. Irvine et al's No. 1 A. D. Mimms, 741 ft. N, 741 ft. W of SE cor. SE NE Sec. 20-9s-7w ..... No report.

JEFFERSON DAVIS PARISH

R. D. Finly's No. 1 Clarphy Legnion, SW NW Sec. 32-10n-4w ..... Cmtd. surface csg. 510 ft.

Humble O. & R. Co.'s No. 1 Devilbiss, 1,650 ft. S, 350 ft. W of NE cor. of Sec. 14-9s-4w ..... Drlg. sand and gravel 808 ft.

LA FOURCHE PARISH

Lechner & Hubbard's No. 1 Lollain, 150 ft. out of SE cor. NW NW Sec. 32-18s-22e ..... Spudded.

PLAQUEMINES PARISH

The Texas Co.'s No. 7 Garden Island ..... Drlg. 250 ft.

ST. BERNARD PARISH

Cook Drlg. Co.'s No. 1 Delecroix farm ..... Drlg. shale 4,160 ft.

TERREBONNE PARISH

The Texas Co.'s No. 7 Calliou Island, 300 ft. S, 300 ft. W of NE cor. Sec. 19-23s-20e ..... Driving piling.

The Texas Co.'s No. 17 State-Lake Barre, 1,476 ft. W, 626 ft. S of NW cor. Sec. 20-21s-20e ..... T.D. 4,436 ft. in salt; sidetracking in salt 1,508 ft.

The Texas Co.'s No. 4 Lake Barre-L.L.&E., 3,303 ft. S, 2,075 ft. W of NW cor. Sec. 30-21s-20e in Sec. 36-21s-19e ..... Drlg. hard sand 3,568 ft.

VERMILLION PARISH

Shell Pet. Corp.'s No. 1 Herbert, 2,310 ft. W, 330 ft. N of SE cor. Sec. 10-15s-1e ..... Drlg. sticky shale 1,702 ft.

VERNON PARISH

Minerals Division Llano Co.'s No. 1 Llano Del Rio, 543 ft. E, 300 ft. S of NW cor. NW Sec. 34-2n-9w ..... No report.

Wildcat Operations in Southwest Texas

(Continued from Page 59)

H. Robertson's No. 1 Schmidt, 25 ft. from N line, 850 ft. from W line of D. H. Dyer Sur. ..... T.D. 80 ft.; spudded in and S.D.

Texas and Gant's No. 1 Mikulec, 330 ft. to NW and SW lines of tract in Wm. Barton Sur. ..... Rigging up.

BEE COUNTY

Nichols & Bruner's No. 1 Grover Heidenfels in John Bryan Sur., 891 ft. from S line, 1,950 ft. from E line of tract ..... T.D. 3,500 ft; drlg.

W. C. Pool's No. 1 J. C. Wood, 150 ft. N along E line of H.&G.N. Sur. from NE cor. of Mary O'Connor lease, thence 450 ft. E at right angles ..... Moving in rig.

BELL COUNTY

James Scoggins' No. 2 Warrick, 1,000 ft. to NW line, 2,400 ft. to NE line of 235-ac. tract in Ingram Sur. .. T.D. 1,432 ft.; fishing.

BEXAR COUNTY

Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio ..... T.D. 1,054 ft.; standing.

Milo Trussell's No. 1 Pruitt, 450 ft. from W line, 1,500 ft. from S line of Pruitt tract ..... T.D. 905 ft; 15 bbls.

Motes-Campbell's No. 1 Pruitt, 550 ft. NE of Trussell's No. 1 Pruitt, 54 varas from E line of tract in Samuel McCollough Sur. ..... Rigging up.

Robert C. Hill's No. 1 Schell, 1,300 ft. from N line, 1,100 ft. from W line of 161-ac. tract in Sec. 234, Perretaux Sur. ..... T.D. 894 ft.; S.D.

Rollin V. Hill, Jr.'s No. 1 Max Boeck, 1,700 ft. from N line, 2,700 ft. from E line of tract in J. R. Shepherd Sur. ..... T.D. 398 ft.; setting csg.

Leonard Ray's No. 1 Thomas Dillon, 1,250 varas to SW lines, 1,050 varas to NW lines of M. DeLuna grant, J. H. Penshorn Sur., 3½ miles S of Lesoya ..... T.D. 190 ft; comp. as fresh wtr. well; skidding to drill for oil.

H. G. Venable's No. 2 F. Dulling, 1,500 ft. W of center of E line of tract ..... Location.

BLANCO COUNTY

H. T. McGee's No. 1 Forbes, cen. Sec. 167 ..... Rigging up.

Hardy Sitton's No. 1 Luders, 150 ft. from S line, 1,420 ft. from E line of James Stanford Sur. ..... T.D. 1,540 ft.; standing.

CALDWELL COUNTY

Louis Crouch's No. 1 Sue Neelan, 1,500 ft. to SE lines, 150 ft. from NE lines of 200-ac. tract in John B. Gray Sur. ..... T.D. 1,000 ft; drlg.

J. M. Dickson's No. 1 W. T. Mooney, 7,600 ft. from NE line, 5,200 ft. from SE line of Solomon Seal Sur..... T.D. 2,265 ft.; standing.

E. D. Herne's No. 1 M. C. and P. W. Jeffrey 126-ac. tract, 150 ft. from N and E lines of tract in James George Sur. ..... Set surface pipe, waiting for wtr.

E. L. Hope and Joe Cole's No. 1 M. August, 150 ft. from NE line, 165 ft. from NW line of tract in A. Floyd Sur. ..... T.D. 20 ft.; spudded in and S.D.

J. W. Kemp's No. 1 George Vickery, 760 ft. from SE line, 200 ft. from NE line of tract in Squire Damon Sur. ..... T.D. 2,100 ft.; reset csg. 1,820 ft.

E. R. Thomas' No. 1 Alexander, 568 varas from NW lines, 334 varas from NE line of 158 acres in Spiller Sur. ..... Rigging up.

C. J. Webster Oil & Gas Co. and D. V. Smith's No. 1 McMahon, 450 ft. to SW of center of NE line of 50-ac. tract in James Pinchback Sur. ..... T.D. 2,401 ft; abd. in Edwards.

DIMMITT COUNTY

Motes-Campbell Co.'s No. 1 Denton, 150 ft. from E line, 250 ft. from S line of Tracts 33 and 34 in Sec. 60 of Denton Colony Subd. ..... T.D. 1,400 ft; changing to rotary.

DUVAL COUNTY

Buchanan, Schoolfield & Frasher's No. 1 Sling, 330 ft. from N and E lines of SE of Sur. No. 113 ..... T.D. 2,250 ft; drlg.

Cowden et al's No. 1 State Bank of Alice, 209 ft. to S line, 1,450 ft. to W line of E. Valentine Sur. No. 26.. Steel derrick.

Frank Gravis' No. 3 Schallert in Sur. 255 (Palangano salt dome) ..... T.D. 2,060 ft.; standing.

Huff & Kyle's No. 1 A. Roach, 865 ft. from E line, 45 ft. from S line of Blk. 7, Sur. No. 457 ..... T.D. 60 ft; spudded in.

Edwin M. Jones' No. 1 Duval County Ranch Co., 150 ft. to S and E lines of NE of Sur. 278 ..... T.D. 1,750 ft; drlg.

Magnolia Pet. Co.'s No. 1 Duval County Ranch Co., Sur. 209 ..... Location being made.

Newton et al's No. 1 Welder-Wood, 5,550 ft. from W line, 4,590 ft. from N line of Sur. 102 ..... Rigging up.

Plymouth Oil Co.'s No. 2 Hoffman, ¾ mi. NW of No. 1.. Set surface csg.

C. P. Scott's No. 1 J. W. Kidd, 990 ft. from N and E lines of SE of Sur. No. 56 ..... T.D. 2,264 ft; cored sand.

Smith & Capps' No. 1 Peters, 330 ft. from S line, 340 ft. from W line of NE of Sur. No. 178 ..... T.D. 2,451 ft; setting csg.

Stanley Smith's No. 1 C. Pena, 330 ft. from S and W lines of Sur. No. 79 ..... T.D. 1,860 ft; drlg.

Wm. B. Stewart's No. 1 Duval County Ranch Co., 990 ft. to S and E lines, of NE of Sur. 362..... Location.

Wm. B. Stewart's No. 2 Duval County Ranch Co., 330 ft. from N and W lines of N½ SW of Sur. 362..... Moving in.

S.R.C. Oil Co.'s No. 1 Duval County Ranch Co., 150 ft. from N line, 4,200 ft. from W line of Sur. 192..... Rigging up.

FRIO COUNTY

Amerada Pet. Corp.'s No. 1 Halff & Oppenheimer, 1,200 ft. from N line, 200 ft. from E line of W. F. Halsel Sur. ..... T.D. 5,800 ft; drlg.

GILLESPIE COUNTY

Rod Lagra's No. 1 Stephen, 500 ft. from N and W lines of A.B.&M. Sur. No. 949 ..... Spudded in.

GUADALUPE COUNTY

B. E. Brock's No. 1 Ogletree, 1,600 ft. from W line, 450 ft. from S line of tract in Robert Smith Sur..... T.D. 2,080 ft.; drlg. lime.

Keene & Russell's No. 1 Lowman, 300 ft. from E line, 350 ft. from N line of tract in George Allen Sur. .... T.D. 380 ft; standing; to be completed by Clint Lanier.

W. A. Scrutchin's No. 1 S. J. Lowman, 170 ft. from N line, 195 ft. from W line of 10-ac. tract, in Blk. 1, Sec. No. 1 of S. J. Barnes Sur. ..... Derrick.

O. R. Seagraves' No. 1 Krueger, 150 ft. to N and W lines of 88.75 acres in John G. King Sur. 15..... Rigging up.

Smith's No. 1 Lowman, offsetting old test of Humble.. T.D. 400 ft; drlg.

Walton et al's No. 1 Dan Darling, 1,830 ft. from NW line, 1,198 ft. from SW line of Ben Fuqua Sur. ..... T.D. 216 ft.; S.D. to clear title.

GOLIAD COUNTY

Heffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,300 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.

GONZALES COUNTY

Antibus et al's No. 1 James, 4,250 ft. from N line, 1,900 ft. from E line of Mary A. Williams Sur. ..... T.D. 2,475 ft; drlg. in shale.
Edmiston & Kirby Pet. Co.'s No. 1 J. W. Ward, Jr., 300 ft. from N line, 833 ft. from W line of tract in Dan McKay Sur. ..... T.D. 1,592 ft.; standing.
A. King's No. 1 F. Ramsinski, 1,031 ft. from N line 1,320 ft. from E line of tract in Gonzales Townsite Sur. ..... Spudded in.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft. S.D.
Palm City Pet. Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... T.D. 1,445 ft.; drlg.
Dayle L. Smith's No. 3 Daskam, SW part of county ..... T.D. 1,726 ft.; S.D.

JIM HOGG COUNTY

Cole Pet. Co.'s No. 1 W. Allen, 990 ft. to E line, 1,320 ft. to N line of Blk. 13, Randado grant ..... T.D. 2,750 ft; drlg.

JIM WELLS COUNTY

Humble Oil & Ref. Co.'s No. 1 Fuhrkin, 1,117 ft. from N line, 450 ft. from W line of 150.77-ac. tract in Phillips Sacks Sur. ..... T.D. 2,266 ft; tested S.W; drlg ahead.
F. A. Lain's No. 1 Vernon Porter, 800 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 ..... T.D. 3,611 ft.; standing.

KARNES COUNTY

A. E. Edmiston's No. 1 G. W. Cross, 500 ft. from E line, 150 ft. from N line of tract in M. N. Reed Sur. ..... Spudded in.
Hindeman et al's No. 1 F. C. Weinert ..... Spudded in, S.D.
H. J. Porter et al's No. 1 Reasoner, 1,800 ft. to S line, 650 ft. to E line of 126-ac. tract ..... Drlg. wtr. well.
Tippett & Mull's No. 1 Smith, 8,500 ft. from N line, 200 ft. from E line of Francis Haskins Sur., 3½ miles E of Helena ..... Spudded in.

KENDALL COUNTY

Dupree et al's No. 1 Hagg, 600 ft. to S line, 2,700 ft. to W line of tract, B.B.B.&C. Sur. 91 ..... Location.

KERR COUNTY

Eastland Oil Co.'s No. 1-C Jeff Love, 150 ft. from S and E lines of C.C.S.D&R.G.N.G. Sur. No. 1,595 ..... T.D. 2,542 ft; U.R.
Evans & Gant's No. 1 Estelle Young, 150 ft. out of NW cor. of Sec. 28, E. A. Burge Sur. ..... T.D. 1,310 ft.; standing
Van Duyn & Moore's No. 1 Nowlin, 2,000 ft. from E line, 2,200 ft. from N line of James R. Bettner Sur... T.D. 525 ft.; setting csg.
Verde Oil & Gas Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923 in Hamilton Sur. ..... T.D. 118 ft.; standing.

KLEBERG COUNTY

Harris et al's No. 1 Dennett, 600 ft. from S line, 760 ft. from E line of Blk. 7, Sec. 38, Kleberg Town & Imp. Co. Subd. ..... T.D. 160 ft.; standing
H. Carter's No. 1 R. H. Simmons, 150 ft. from S and W lines of tract in Sec. 7, King Sur. No. 3 ..... T.D. 3,205 ft.; standing.

LA SALLE COUNTY

Interstate Oil Industries, Inc.'s No. 1 J. F. Mayes, 600 ft. from S and W lines of Blk. 30, L&G.N. Sur. No. 19 ..... T.D. 2,825 ft; standing.

LIVE OAK COUNTY

Carroll Brown's No. 1 Beckley, 1,800 ft. E along N line of T. B. Sparks Sur., from NE cor., thence 150 ft. at right angles, L. J. Sparks Sur. ..... Rigged up.
J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. 37 ..... T.D. 2,380 ft; abd.
J. A. Harper's No. 2 fee, center of Blk. 40 ..... Location.
M.W.R. Oil Corp.'s No. 1 Ohlendorff, 649 ft. from NE line, 285 ft. from SE line of Blk. 25, S. G. Irrigation Co. Sur., 3 miles N of Whitsett ..... T.D. 1,200 ft; abd.
H. A. Pagenkopf's No. 1 Nichols, 850 ft. to W of E line, 450 ft. S of E line, Bridget Haughtey Sur. ..... T.D. 450 ft; drlg.
C. J. Webster Oil & Gas Co.'s No. 1 O. F. Akers, 300-ac. tract in T. Henry Sur. ..... T.D. 100 ft.; standing.

LEE COUNTY

Paton Bros.' No. 2 Turner, 150 ft. due SE of No. 1-A Turner, junked at 5,675 ft. in the David Hudson Sur., 3 miles SE from Tanglewood ..... Location.

MAVERICK COUNTY

H. E. Lewis' No. 1 Kifuri, 640 varas E of river, 140 varas from S line of Poindexter & Burns Sur. 21 .... Location.

McMULLEN COUNTY

L. W. Cappa' No. 1 Hagist, 1,650 ft. from N line, 2,640 ft. from E line of Sec. 6, J. W. Osborne Sur. ..... Location.
Howeth & O'Neill's No. 1 Roos Bros., 150 ft. from N line, 650 ft. from W line of Sec. 30, Rhodes ranch, Beatty, Seale & Forwood Sur. ..... T.D. 2,402 ft; testing sand.
Jaqua & Crow's No. 1 Hagist, 330 ft. from N and W lines of R. W. Mills Sur. No. 467 ..... Ready to resume.
Chas. B. Loftin's No. 1 R. H. Brown, in R. H. Brown Sur. No. 8 ..... T.D. 400 ft.; drlg.
C. C. Shumway's No. 1 Shiner, 400 ft. from W line, 200 ft. from N line of Blk. 45 of Shumway Subd. of Shiner ranch ..... T.D. 370 ft.; S.D.

MEDINA COUNTY

James E. Greenlee's No. 1 Feasler, 600 ft. from N line and 3,400 ft. from E line of L. G. Harrison Sur. No. 799 ..... T.D. 1,230 ft.; standing.
Moore, Richey & Clifton's No. 1 Reichererz, 150 ft. from N and W lines of tract, SW of Lacoste ..... Set surface csg.
F. Ryal's No. 1 G. Martin, 150 ft. from S and W lines of Blk. 368, H. Castro Sur. ..... Spudded in and S.D

MILAM COUNTY

Bridwell's No. 1 Terry, 1,100 ft. from N line, 800 ft. from W line of tract in Jose Leal Sur. ..... T.D. 2,460 ft.; drlg.
Clark et al's No. 1 Hoppe, 450 ft. to NE lines, 450 ft. to SE lines of E. Hoppe 60-ac. tract in Juan Jose Acosta Sur. ..... Location.
Ed Clark's No. 1 Pritchard, 1,100 ft. to SE lines, 700 ft. to NE lines of 163-ac. tract in F. Ernst Sur., 6½ miles NE Thorndale ..... Rigged up.
Glass et al's No. 1 Ellison, 700 ft. from N line, 1,350 ft. from W line of 200-ac. tract in Samuel Frost Sur.... T.D. 1,665 ft.; S.D.
Keyser & Roberts' No. 2 Ward, 125 ft. NE of No. 2 Ward, on S. S. Pallin tract in Levi Taylor Sur. ..... T.D. 1,810 ft.; drlg.
Marvel Wells, Inc.'s No. 1 fee, center of 5-ac. tract out of Wm. Henits 133.3-ac. tract in J. J. Liendo Sur.. T.D. 1,940 ft; drlg. shale.

NUECES COUNTY

Miller et al's No. 1 Harney, 200 ft. from NW line, 1,850 ft. from SW line of 445-ac. tract in Gregoria Farias Sur. ..... Moving in tools.
George Noble's No. 1 Homeland Syndicate, 300 ft. to SE and SW lines of Blk. 3, Sec. 12, 5 miles S Corpus Christi ..... Location.

STARR COUNTY

Adams & Modest's No. 1 Wood, 2,070 ft. from W line of Porcion 84, Camargo, and 1,472 ft. N of Missouri Pacific Railroad ..... Spudded in.
W. P. Chancellor's No. 1 A. Guerra, 26,000 ft. from S line, 2,600 ft. from E line of Share 6, of San Jose grant ..... T.D. 750 ft.; drlg.
B.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 580 ft. from W line of Porcion 87, near La Puerta ..... T.D. 3,675 ft; drlg.
D. H. Carpenter's No. 1 Salinas, 2,087 ft. from N line, 1,321 ft. from E line of Share 55 of partition of Porcions 35, 39, 40 in Jurisdiction of Reynosa ..... T.D. 2,750 ft; repairing rig.
Coastal O. & G. Co.'s No. 1 Kelsey Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86.. T.D. 1,860 ft.; changing to heavier rig.
W. T. Gilman & Travelers Oil Co.'s No. 1 C. Ramos, 1,170 ft. from SW line, 1,470 ft. from NW lines of Sur. No. 150 ..... Abd.
Goodwin & Yantis' No. 1 Walker, 430 ft. SE of W line of Isabel Lopez property in Sur. 767 ..... Moving in rig.
Great Plains Oil Co.'s No. 1 Sanchez, 660 ft. from W line, 330 ft. from S line of SE of NW of Sur. No. 344 ..... T.D. 1,076 ft; drlg.
Jeffries and Lambeth Drilling Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Jurisdiction of Camargo ..... T.D. 1,522 ft; tested gas; set csg.
Boyd C. Jones' No. 1 Garza, 2,407 ft. from N and E lines of Share 26, Part. of Porcions 67-72, Jurisdiction of Mier ..... T.D. 505 ft; no report.
LaJoya Oil & Gas Co., in Porcion 29, NE part of county.. Location.
A. C. McGahhey's No. 1 Fernandes Bros., 1,800 ft. from W line, three-quarters of a mile from Rio Grande River, in Porcion 99, Jurisdiction of Camargo ..... T.D. 180 ft.; drlg.
D. A. Miller's No. 1 Madrigal, 4,827 ft. to N line, 1,987 ft. to E line of Share 15, Porcions 67, 73, 1 mile NE of Roma ..... T.D. 105 ft.; no report.
John Pope, trustee's No. 2 H. Gonzales, 150 ft. W of cen. of E line of Sur. No. 329 ..... Spudded in.
J. W. Seaward's No. 1 F. Dawson, 495 ft. from W line, 240 ft. from S line of tract in Blk. 6, Share 3-B of Porcion No. 70 ..... Location.
George Stobaugh's No. 1 Seabury et al, 150 ft. from S and W lines of Porcion 107 ..... T.D. 278 ft.; no report
Travelers Oil Co.'s No. 1 C. Ramos, 2,000 ft. from SW lines, 2,640 ft. from NW lines of Sur. 150 ..... Location.

TRAVIS COUNTY

J. L. Collins & Co.'s No. 1 John Carlson, 630 ft. to NE lines, 1,570 ft. from SE lines of 177-ac. tract in M. W. Smith Sur. ..... T.D. 940 ft; drlg.
Franklin et al's No. 1 Reimer, 1,200 ft. from SE line, 1,400 ft. from most southerly SW line of Sur. 35 .. T.D. 220 ft.; S.D.
Fritz Fuch's No. 2 Wm. Smith, 150 ft. from NE line, 750 ft. from NW line of N 113 ac. in L. Kimbro Sur.. Location.

UVALDE COUNTY

J. V. Scoggin's No. 1 Olive Henry, 1,100 ft. from N and E lines of tract in Hugh Kilgore Sur. ..... T.D. 670 ft.; S.D.

WEBB COUNTY

J. W. Edwards' No. 1 M. D. Slator, 1,320 ft. to NE and NW lines of Blk. 72, Slator Subd. of J. V. Borrego grant ..... T.D. 2,050 ft; standing.
Frank Gravis' No. 1 Puig, 150 ft. to N and W lines of Blk. 12, Edginton Subd., Albereas grant ..... T.D. 100 ft.; drlg.
O. W. Killam's No. 6 Bruni, 150 ft. S 55 deg. W from S cor. of Sur. 18, Ranchita Pasture, Borrego grant.. T.D. 200 ft; drlg.

WILLIAMSON COUNTY

McLean et al's No. 2 R. C. Miller, 500 ft. to S line, 100 ft. to W line of tract in B. Manlove Sur. ..... T.D. 1,450 ft.; S.D.

ZAPATA COUNTY

Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... Location.
Donohoo et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700-ac. of Share A, Charco Redondo grant ..... T.D. 1,142 ft; standing.
T. J. Murray's No. 1 S. Vela, 285 ft. from NE line, 153 ft. from SE line of Blk. 145, Doty Subd., Share 4, El Grullo grant ..... Rigging up.
Phelps, Taegel & Leyendecker's No. 1 Martinez, 150 ft. to N and W lines of Blk. 15 of S. T. Phelps, Jr. Subd. "A" of Villa grant ..... T.D. 1,725 ft; drlg.

ZAVALA COUNTY

Adair & Daniel's No. 1 Gates, 1,320 ft. from N line, 1,320 ft. from E line of Hooper & Wade Sur. No .13.. T.D. 3,833 ft; S.D.

Southwest Texas Proven Areas

Week Ending January 7

RIDDLE POOL—BASTROP COUNTY

Company, well, farm name, section and block— Remarks:
Ogden & Reed's No. 8 Riddle, 600 ft. S and E of No. 1 Riddle in 94.5-ac. tract in Joshua Gray Sur. ..... Clearing site.

NORMANNA POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 2 Hicks ..... T.D. 4,060 ft; coring.

PETTUS FIELD—BEE COUNTY

J. L. Mauldin's No. 3 fee, 300 ft. S of No. 1 fee, George A. Kerr Sur. ..... T.D. 3,000 ft; drlg.
Slick-Seeligson's No. 3 Ray, 600 ft. from SE line, 300 ft. from NE line of company lease in George A. Kerr Sur. ..... Moving in rig.

TULETA POOL—BEE COUNTY

Conservative Oil Co.'s No. 1 Cloutts, 165 ft. from W line, 150 ft. from N line of SW SW SW Sec. 2, of Ragsley Subd. of Miller ranch in Uranga Sur. ..... T.D. 3,000 ft; drlg.
Taber et al's No. 1 Harris, 150 ft. from N and W lines of Blk. 13, Sec. 13, Ragsley Subd. of Uranga grant .. T.D. 4,328 ft; plugging back.
The Texas Company's No. 2 Cox, 250 ft. from S and W lines of SE of SW of SW of Sec. 2, Ragsley Subd. of Uranga tract ..... Location.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodriguez Sur. ..... T.D. 2,230 ft.; standing.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 3 J. H. Gembler, 180 ft. from N and E lines of tract in A. Manachaca Sur. 51. T.D. 1,216 ft.; standing.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 750 ft. from E line of tract in J. Montes Sur. ..... T.D. 825 ft.; standing.
F. H. Eckert's No. 1 Adolph Brehm, 150 ft. to S and E lines of tract in west part of Boquar Sur. ..... Moving in rig.
F. H. Eckert's No. 6 Louis Brehm, 320 ft. S of No. 5, 150 ft. to S line, 480 ft. to E line, Boquar Sur. ..... Moving in rig.
Gatlin Oil Co.'s No. 15 I. A. Beck, 150 ft. from S and E lines of tract in J. Montes Sur. ..... Location.
W. R. Swearingen's No. 11 Halbardier, 460 ft. SE of No. 10 Halbardier, J. F. Perez Sur. ..... Location.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 2-B Walker 46-ac. tract, 360 ft. from NW line, 500 ft. from SW line of tract in Solomon Seal Sur. ..... T.D. 2,372 ft.; waiting for pump.

SALT FLATS—CALDWELL COUNTY

Hickman et al's No. 1 C. A. Dickerson, 150 ft. N of cen. of S line of tract in John D. Rains Sur. .. .. T.D. 2,172 ft.; standing.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

R. B. Byrd's No. 4 Wright, 1,086 ft. from W line, 330 ft. from S line of Sur. No. 101 ..... T.D. 1,500 ft; drlg.
R. B. Byrd's No. 5 Wright, 330 ft. from N line, 1,470 ft. from W line of Sur. 101 ..... Location.
Central Powers, Inc.'s No. 5 Tuck-Johnson, 330 ft. from N and W lines of SE SW Sur. 42 ..... T.D. 500 ft; drlg.
H. H. Coffield's No. 5 H. Wendt, 810 ft. to E line, 330 ft. to S line, SE NE Sur. 45 ..... Derrick.
W. T. Daniels' No. 1 F. J. Smith, 330 ft. from N and W lines of SW of NE of Sur. No. 46 ..... T.D. 900 ft; moving in new boiler.
Hamill & Hamill's No. 5 C. W. Hahl, 330 ft. to N line, 990 ft. to E line, N½ SE Sur. 42 ..... T.D. 2,275 ft; drlg.
Highland Oil Co.'s No. 5 Lundvall, 330 ft. to N line, 990 ft. to W line of S½ NE of Sur. 42.. ..... Location.
Humble Oil & Ref. Co.'s No. 2 Hahl, 660 ft. E of No. 1 Hahl in Sur. No. 74 ..... T.D. 2,306 ft; comp. 50 bbls. daily.
Magnolia Pet. Co.'s No. A-3 Hahl, 330 ft. to N and W lines of NE of SE of Sur. 45 ..... T.D. 2,311 ft; S.W.; abd.
Magnolia Pet. Co.'s No. 3 J. V. Allen, 330 ft. to N and E lines, S½ NE Sur. 42 ..... T.D. 2,274 ft; bailing.
Magnolia Pet. Co.'s No. 4 J. V. Allen, 330 ft. to S and W lines of S½ SE Sur. 42 ..... Location.

Magnolia Pet. Co.'s No. 3 Brodbeck, 330 ft. from N and E lines of W½ NW NE Sur. 44 ..... Location.
Magnolia Pet. Co.'s No. 4-A Hahl, 330 ft. from N and W lines of SW SE Sur. 45 ..... Rigging up.
Magnolia Pet. Co.'s No. 2 J. W. Riley, 990 ft. from N line, 330 ft. from E line, NE SW Sur. 45 ..... Location.
Magnolia Pet. Co.'s No. 3 White, 330 ft. from N and W lines of Sur. No. 64 ..... Location.
Magnolia Pet. Co.'s No. 13 Wendt, 330 ft. to S and E lines of SW of NW of Sur. 44 ..... Drilling.
San Diego Oil Corp.'s No. 5 E. Riley, 330 ft. from S and W lines of NW NW of Sur. No. 46 ..... Location.
San Diego Oil Corp.'s No. 3 L. Bennett, 500 ft. N of No. 1, 250 ft. to W line of SE SW of Sur. No. 44.. Location.
San Diego Oil Corp.'s No. 4 E. Riley, 330 ft. from N line, 550 ft. from W line of NW NW of Sur. No. 46..T.D. 2,290 ft; set csg; W.O.C.
Seacord & Putnam's No. 1 Lundell, 330 ft. from S and E lines of NW of NE of Sur. No. 60 ..... Derrick.
The Texas Company's No. 3-A Wendt, NW Sur. 42 ..... Location.
The Texas Company's No. 3 Riggs, 200 ft. from N and E lines of NE of NW of Sur. No. 46 ..... Location.
The Texas Co.'s No. 5 Johnson, 330 ft. to S line, 990 ft. to W line of N½ SW of Sur. 42..... Location.
Wilkins Seacoard's No. 1 Lundell, 330 ft. to S and E lines of NW of NE of Sur. 60 ..... Location.
Windsor Oil Co.'s No. 3 Cummings, 210 ft. from N line, 330 ft. from E line, E½ NW NE Sur. 44 ..... Location.

SOUTH GOVERNMENT WELLS FIELD—DUVAL COUNTY

Humble Oil & Ref. Co.'s No. 10 White, 330 ft. to S line, 1,650 ft. to E line of Sur. 249 ..... T.D. 130 ft; set surface csg.

SARNOSA FIELD—DUVAL COUNTY

Atravasada Oil Co.'s No. 1 P. Henrandez, 330 ft. to NW and SW lines of E half of Sur. 574 ..... T.D. 700 ft; drlg.
Sarnosa Oil Corp.'s No. 4 Well, 330 ft. NW and 660 ft. NE of No. 3 in Sur. No. 130 ..... T.D. 2,430 ft; comp. 300 bbls. daily.
Sarnosa Oil Corp.'s No. 5 Well, 660 ft. due S of No. 4.... Moving in.
Smith & Capps' No. 4-A Duval County Ranch Co., Sur. No. 574 ..... Location.
Sun Oil Co.'s No. 2 Cuellar (Cano), 150 ft. from SW and SE lines of E quarter of Sur. No. 576..... Rigged up.

DARST CREEK FIELD—GUADALUPE COUNTY

John F. Camp's No. 3 Sue Denman, 1,025 ft. S of road, 540 ft. to E line of tract in Wm. Arrington Sur. .... T.D. 2,800 ft; drlg.

SAL-MAR FIELD—GUADALUPE COUNTY

A. H. Barnholl's No. 1 Chas. Woehler, 300 ft. to N and E lines of 138-ac. tract in G. W. Williams Sur. No. 46.. Derrick.
A. W. Wormser's No. 1 Harris, 150 ft. from N line of tract and 150 ft. E of creek in Green Dewitt Sur..... Derrick.

HORD'S CREEK—GOLIAD COUNTY

Sam Vanderweiss' No. 1 Kaufman, 3,700 ft. NE of NE line of B. Merrill Sur., 300 ft. NW of NW line of Vincente Ramos Sur. ..... T.D. 3,400 ft.

ALWORTH FIELD—JIM HOGG COUNTY

H. C. Cate's No. 1 B. J. Leyendecker, 70 ft. to E line, 330 ft. to S line, Blk. 10, Sur. 143 ..... T.D. 1,132 ft; standing.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen (first carried as Hughes & Long's No. 1 Wade), Cen. Blk. 2, Wade ranch ..... Moved in 6 loads heavy machinery; to rig up next week.
Larcro Gas & Pet. Co.'s No. 3 Wade, 2,000 ft. S, 33 deg. W of No. 2 Wade, thence 1,970 ft. N. 57 deg. W.... Material on ground.

WERNER POOL—KERR COUNTY

Sterling O. & G. Co.'s No. 2 Willie Werner, 470 ft. N, 150 ft. W of No. 1 ..... T.D. 935 ft; drlg.

JACOB POOL—McMULLEN COUNTY

Lefevre & Spice's No. 1 Jacob, 2,666 ft. to S line, 1,260 ft. to E line of J. Poitevent Sur. 53 ..... Location.
Longhorn Oil Co.'s No. 2-A Lark, 660 ft. N of No. 1-A Lark ..... T.D. 200 ft; drlg.
Tarver & Nance's No. 1 J. Dickinson Farm Mtg. Co., 150 ft. to E line of McMullen County, 200 ft. to NW lines of tract, or 200 ft. SE of SE line of Campbell Berry Sur. ..... T.D. 300 ft; resumed drlg.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1-A Adams, 50 ft. from No. 1 ..... T.D. 680 ft.; S.D.

SAXET FIELD—NUECES COUNTY

Cappe and Smith's No. 1 Hutchins, 330 ft. from S and E lines of 80-ac. tract in George Frank Sur. No. 416..T.D. 5,004 ft; sidetracking at 3,920 ft.
Gibson Oil Co.'s No. 1 Ran Morgan, 330 ft. from S and E lines of E 80 acres of Ran Morgan's 320 acres in B.S.&F. Sur. No. 405 ..... T.D. 4,861 ft; comp. 150 bbls. daily on one-quarter inch choke.
Gulf Coast Oil Co.'s No. 2 Perkins & Lagasse, 650 ft. from N line, 990 ft. from E line, Sec. 26, Shepherd farm lots ..... T.D. 5,060 ft; plugging back.
Gulf Port Oil Co.'s No. 1 Isencee, 330 ft. to N and W lines of 300-ac. tract in C. Land Sur. ..... Location.
Gulf Port Oil Co.'s No. 3 Frank Bliss, 1,699 ft. to N line, 350 ft. to E line of 235-ac. tract in J. W. Stevens Sur. No. 406 ..... T.D. 1,800 ft; drlg.
Gulf Port Oil Co.'s No. 2 Isencee, 330 ft. from N and E lines of 235-ac. tract in Charles Land Sur. No. 404. T.D. 4,556 ft; comp. 150 bbls. daily.
Gulf Port Oil Co.'s No. 2 Humphreys (first carried as No. 2 Smith), 330 ft. S and E lines of Sur. 406 ..... T.D. 3,010 ft.; drlg.
Houston Oil Co.'s No. 2 McGregor ..... T.D. 3,840 ft; drlg.
O. R. Seagraves' No. 1 Lagasse, 330 ft. from N and W lines of Blk. 22, of H. B. Shepherd farm lots..... T.D. 3,140 ft; abd.
Texas Coast Oil Co.'s No. 1 Clark-Morgan, 330 ft. from S and E lines of Sur. No. 406 ..... Derrick.
Titus & Calloway's No. 3 Lagasse, 330 ft. from N and W lines of E half of Blk. 25 of Shepherd farm lots.. Derrick.
Titus & Calloway's No. 1 Hutchins, 500 ft. from N line, 1,500 ft. from W line of Blk. 19, Shepherd farm lots..T.D. 4,572 ft; comp. 115 bbls. daily.
Titus & Calloway's No. 1 Ran Morgan, 330 ft. from N and E lines of W 80 acres of E 160 acres of N half of 423 acres of B.S.&F. Sur. No. 403 ..... Derrick.

WHITE POINT FIELD—SAN PATRICIO COUNTY

Saxet Oil Co.'s No. 19 Rachel ..... T.D. 4,390 ft; drlg.

LOS OLMOS POOL—STARR COUNTY

Austin et al's No. 1 Kelsey Bass, 150 ft. to N and W lines of NW of NW of Sur. 4, Porcions 75, 76, 77, Jurisdiction of Camargo ..... Rigging up.
Goodwin & Yantis' No. 1 Kelsey Bass, 150 ft. to S and E lines of SE of NW of Sur. 3, Porcions 75, 76, 77. .. Rigging up.
Goodwin & Yantis' No. 1 Seabury, 150 ft. from N and E lines of N 80 ac. of Share 5, W portion of Porcion 75, Camargo ..... T.D. 934 ft; set csg.; W.O.C.
J. E. Harper & Co.'s No. 1 E. Salinas, 150 ft. to S and E lines of 40-ac. tract in Share 16, Por. 75 ..... T.D. 308 ft.; standing.
Hooks & Weaver's No. 1 Kelsey Bass, NE SW Sec. 6, Porcions 75, 76, 77, Camargo ..... Moving in rig.
Keck & Keane's No. 2 Kelsey Bass, 150 ft. from N and W lines of NE NE Sec. 6 of Subd. of Porcions 75, 76, 77, Jurisdiction of Camargo ..... T.D. 1,026 ft. in gas sand.
Los Olmos Oil & Gas Co.'s No. 42 Kelsey Bass, 450 ft. from E line, 420 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo ..... T.D. 210 ft.; drlg.
Los Olmos Oil & Gas Co.'s No. 44 Kelsey Bass, 200 ft. from E line, 120 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Spudded in.
Los Olmos Oil & Gas Co.'s No. 45 Kelsey Bass, 500 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Location.
Los Olmos Oil & Gas Co.'s No. 46 Kelsey Bass, 300 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Location.
Los Olmos O. & G. Co.'s No. 47 Kelsey Bass, 200 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 48 Kelsey Bass, 425 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 49 Kelsey Bass, 650 ft. from E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 51 Kelsey Bass, 425 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 52 Kelsey Bass, 650 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 53 Kelsey Bass, 250 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 54 Kelsey Bass, 475 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 55 Kelsey Bass, 700 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
R. A. Mitchell's No. 1 Kelsey Bass, 150 ft. from S and W lines of NW SE of Sur. 8, Subd. Porcions 75, 76, 77, Jurisdiction of Camargo ..... T.D. 212 ft.; standing.
J. P. Moore and C. B. Van Matre's No. 1 Seabury et al, 150 ft. from E line, 750 ft. from S line of Share 5, Subd. of W part of Porcion 75 ..... T.D. 305 ft.; standing.
C. L. Sinclair's No. 2 Kelsey Bass, 150 ft. to S line, 1,050 ft. to W line of SW of SW of Sur. 5, Porcions 75, 76, 77 ..... T.D. 434 ft.; standing.
Tilden & Jones' No. 1 E. Cuellar, 450 ft. to N line, 750 ft. to E line of Share 11, Porcion 75 ..... T.D. 210 ft.; standing.
Tollen, Floyd & Warner's No. 1 Seabury, 450 ft. from S line, 814 ft. from E line of 80-ac. tract in Share 5, W part of Porcion 75 ..... T.D. 389 ft.; set csg.
Wells et al's No. 1 Lenagraf, 150 ft. from N and E lines of SW of SW of Sur. 7, Porcions 75, 76, 77, Camargo ..... T.D. 387 ft.; being drilled by McCormick.

RIO GRANDE CITY POOL—STARR COUNTY

Mundy and others' No. 1 Salines, 190 ft. to S and W lines of Blk. 12, Share C-38, Porcions 80 and 81, Camargo ..... T.D. 1,460 ft.; standing.

AVIATOR FIELD—WEBB COUNTY

O. W. Killam's No. 1 Garcia, Sur. 609 ..... T.D. 1,932 ft; abd.

LAUREL POOL—WEBB COUNTY

Dyck Oil Co.'s No. 1 Garcia Villareal, 150 ft. from E line, 150 ft. from N line of NE of NW of Sur. No. 1,100 ..... Comp. 75 bbls. hourly; T.D. 1,215 ft.
Dyck Oil Co.'s No. 2 Garcia & Villareal, 330 ft. W of No. 1 ..... Moving in.
L. M. Kaiser's No. 1 Garcia & Villareal, 150 ft. to N and W lines of Blk. 2, Sur. 1,099 ..... T.D. 1,000 ft; drlg.
O. W. Killam's No. 1 Garcia & Villareal, 150 ft. to N and W lines of SE NE Sur. 1,110 ..... T.D. 1,700 ft; drlg.
Magnolia Pet. Co.'s No. 1 Garcia & Villareal, 150 ft. from N and W lines of NW NE of Sur. 1,100..... Derrick.
Montex Oil Co.'s No. 1 B. Rosenberg, 150 ft. to S and W lines of Blk. 5, Sur. 271 ..... T.D. 2,250 ft; abd.
Newton Drilling Co.'s No. 1 A. Garcia, 2,550 ft. from S line, 2,340 ft. from W line of Sur. No. 52, 2 miles SW of Carolina Texas Field ..... T.D. 2,080 ft.; standing.
Reward Oil Co., Sur. 768 ..... Location, 1 mi. SW of Dyck.
Reward Oil Co.'s No. 1 Laurel, 245 ft. to S and E lines of Blk. 15, Sur. 271 ..... T.D. 1,650 ft; drlg.
Reward Oil Co.'s No. 1 Caltex Royalty Co., 150 ft. from N and W lines of Blk. 24, Sur. 768..... Rigging up.
Sal-Mar Oil Corp.'s No. 1 Vela, 660 ft. from NW and SW lines of Blk. 16, Sur. No. 1,011 ..... Location.
Smidon Oil & Gas Co.'s No. 1 Vela, 450 ft. to S line, 150 ft. to S line of Blk. 14, Sur. 263 ..... T.D. 2,540 ft; drlg.
South Texas Oil Co.'s No. 1 Garcia & Gates, Sur. 272.... Location.
South Texas Oil Co.'s No. 1 Garcia & Villareal, Sur. 1,099.. Location.
South Texas Oil Co.'s No. 5 Laurel, Blk. 9, Sur. 270 .... T.D. 500 ft.; drlg.
South Texas Oil Co.'s No. 9 Rosenberg, 311 ft. to E line, 150 ft. to S line, Blk. 16, Sur. 271 ..... T.D. 2,211 ft; comp. 2,000 bbls. daily.
Geo. E. Smith's No. 1 Garcia & Villareal, NW cor. of Sec. 11, Sur. 338 ..... Location.

CAROLINA-TEXAS POOL—WEBB COUNTY

Foster Barnsley's No. 2-F Webster, 165 ft. from N and E lines of SE of NW of Sur. No. 684 ..... T.D. 2,588 ft.; rigging up to deepen.

ESCOBAS POOL ZAPATA COUNTY

The Texas Co.'s No. 16 Measles, 3,764 ft. to SE lines, 19,440 ft. to SW lines, Cerrito Blanco grant ..... T.D. 1,332 ft; drlg.

VILLA POOL—ZAPATA COUNTY

Winch & Billings' No. 2 S. Benavides, 654 ft. to NE lines, 848 ft. to SE lines of Blk. 2 of Fansler & O'Hern Subd. of Villa grant ..... T.D. 1,691 ft; comp. 35,000,000 ft. gas.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 48)

GRANT PARISH

A. W. Phillips, tr.'s No. 1 Cameron, 300 ft. N, 200 ft. E, SW cor. SW NW Sec. 26-7-3w ..... Cmtd. 10-in. 60 ft; S.D.
O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 314 ft. S, NW cor. Sec. 16-9n-1e ..... Derrick.
H. H. Temple's No. 1 Edenborn Est., 2,640 ft. E, 550 ft. S, NW cor. Sec. 20-7-3w ..... Location.
H. H. Temple's No. 1 Guaranty State Bank, 200 ft. E, 200 ft. S, NW cor. Sec. 9-5-1..... Location.

MOREHOUSE PARISH

Feazel & Kaill's No. 1 Davenport, Sec. 28-21-6e ..... S.D. 2,510 ft.
H. W. Snowden's No. 1 Meyers, 330 ft. S and E, SW cor. NE NE Sec. 15-22-7e ..... S.D. 30 ft.

NATCHITOCHES PARISH

Allender & Rasmussen's No. 1 Cane River, 330 ft. N and W, SE cor. Sec. 61-6n-5w ..... S.D. 100 ft.
W. M. Coates' No. 1 Ross Olive, Sec. 10-9-10, 660 ft. S and E from cen. of Sec. ..... S.D. fuel, 2,150 ft.
J. B. Oil Co.'s No. 1 Hankins et al, Sec. 67-10-7 ..... S.D. 670 ft.
Natchitoches Pet. Co.'s No. 1 Edenbarn, 2,240 ft. W, 1,320 ft. S, NE cor. Sec. 4-11-6w ..... Drlg. 2,378 ft; (C.D.).
Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 878 ft. N, 560 ft. E, C, Sec. 23-5-6 ..... Set 6⅝-in. 3,300 ft.; tested S.W. 3,475 ft.

OUACHITA PARISH

Inabnet & Pipe's No. 1 Van Horn, 1,980 ft. N, 660 ft. E, C Sec. 14-18-5 ..... Rig up; W.O.
Milhivan Gas Corp.'s No. 1 W. Va. L. & T. Co., 1,980 ft. E, 1,320 ft. N, center Sec. 10-17-5e ..... Location.
Monroe Oil & Royalties Co.'s No. 1 Thieler, 150 ft. N and E, SW cor. SE NW Sec. 34-18-2e ..... S.D. 2,575 ft.

RAPIDES PARISH

Evers & Collingsworth's (was A. G. Beck et al) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft. W, NE cor. SW SW Sec. 32-4-1e ..... Derrick.
Pet. Industries, Inc.'s No. 1 Lee Lbr. Co., 330 ft. N, 300 ft. W, SE cor. NW SE Sec. 13-5n-2e ..... Derrick.

RED RIVER PARISH

Edward & Clay's No. 1 Delta Pecan Co., 1,600 ft. N, 450 ft. E, SW cor. Sec. 27-13-11 ..... Drlg. 1,620 ft.

H. M. Jones' No. 1 A. N. Sample, 330 ft. S, 330 ft. E, NW cor. Sec. 10-14-11 ..... Location.
G. T. Shaw et al's No. 1 Wilkinson, 300 ft. N, 460 ft. W, SE cor. NE SE Sec. 4-13-10 ..... Drlg. 1,220 ft.

RICHLAND PARISH

Humble Prod. Co.'s No. 1 fee, SW NW Sec. 11-14-6 ..... Location.

SABINE PARISH

Coates Pet. Co.'s No. 3 Stille, 330 ft. N and E, SW cor. Sec. 35-8-13 ..... Location.
Craft & Primm's No. 1 C. Alford, 720 ft. S, 460 ft. E, NW cor. SW NW Sec. 18-7-10 ..... Drlg. 1,230 ft.
Flinchbaugh & Myers' No. 1 Aaron, 250 ft. S and E, NW cor. Sec. 33-9-13 ..... Rigged up on second hole; W.O.
Frank Foster, Inc.'s No. 1 C. J. Gaddis, 200 ft. S and W, NE cor. Sec. 30-9-11 ..... Began drlg. Dec. 28; cmtd. 10-in. 152 ft; drlg. 1,300 ft.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW Sec. 10-8-13 ..... S.D.; shale and lime 4,886 ft.
R. T. Henderson's No. 1 Sistrunk, 450 ft. N, 150 ft. W, C, Sec. 9-9-12 ..... Arranging to set 6-in. 1,617 ft.
Helis et al's No. 1 Sabine State Bank, 350 ft. N and W, SE cor. SW SW Sec. 26-8-11 ..... Drlg. 2,100 ft.
Ab Jones' No. 1 Garcia, 300 ft. S and W, NE cor. NW SE Sec. 4-7-13 ..... T.A. 2,070 ft.
G. B. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE Sec. 34-8-11 ..... Drlg. hard shale 2,350 ft.
G. W. Langley et al's No. 1 Peavy-Wilson Lbr. Co., 330 ft. S and W, NE cor. Sec. 16-5-9 ..... Derrick pattern.
Geo. LeGrand's No. 1 McGough, 300 ft. S, 300 ft. E, NW cor. SW NW Sec. 2-8-10 ..... Arranging test 2,410 ft.
C. D. Lee, tr.'s No. 1 Whitney, 330 ft. N and W, SE cor. NW NE Sec. 12-9-14 ..... Top marl 1,548 ft; S.D. fuel 1,-715 ft.
Ben Merritt's No. 1 Lucina, 400 ft. N, 378 ft. E, SW cor. SW NE Sec. 4-5-12 ..... Derrick.
C. D. Neff, tr.'s No. 1 Snell, Sec. 9-7-11, 350 ft. N, 460 ft. W, SE cor. Sec. ..... W.O.S.R. 2,509 ft.
H. W. Perritt's No. 1 Brown Lbr. Co., 810 ft. S, 455 ft. W, NE cor. NW NE Sec. 21-8-10 ..... Cmtd. 6-in. top marl, 2,529 ft.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE Sec. 8-8-10 ..... Set 10-in. 41 ft.; S.D. 250 ft.
Reeves & McNeely's No. 1 Ponder, 330 ft. N and W from C, Sec. 15-7-11 ..... Began drlg. Nov. 7; cmtd. 10-in 21 ft.
Thornton et al's No. 1 S. S. Martinez, 355 ft. S, 330 ft. W, NE cor. SE NE Sec. 4-7-13 ..... S.D. 2,048 ft.
Otis A. Roberts' No. 1 Sabine Lbr. Co., 224 ft. S, 451 ft. W, NE cor. SW NE Sec. 5-7-13 ..... S.D.; W.O. 2,500 ft.
Roberts & Sledge's No. 1 La. Long Leaf Lbr. Co., 290 ft. N, 466 ft. E, SW cor. NE SE Sec. 29-8-10 ..... Derrick.
Roberts & Sledge's No. 2 Sabine Lbr. Co., 803 ft. W, 794 ft. N, SE cor. SE SW Sec. 5-7-13 ..... W.O.S.R. 2,480 ft.
Roshko & LaBane's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE SE Sec. 35-8-11 ..... S.D. 1,650 ft.

CONVERSE DISTRICT

Alford & Cleary's No. 1 Jackson, 330 ft. N and E, SW cor. SE NW Sec. 10-9-13 ..... Location.
Alford & Cleary's No. 1 Patrick, 330 ft. S and W, NE cor. SW NE Sec. 11-9-13 ..... Location.
Cloud & Bolin's No. 1 Bowman-Hicks, SE cor. NE NE Sec. 24-9-13 ..... Cored sand and marl 1,724 ft.; bailed down 1,200 ft.; no show: dry 2,200 ft; bailed dry; S.O. and S.D. 2,210 ft.
Evans Bros.' No. 1 Cranford, 300 ft. S, 300 ft. W NE cor. SE SE, Sec. 26-9-13 ..... Began drlg. Dec. 30; cmtd. 10-in. 40 ft; drlg. 500 ft.
H. P. Key's No. 1 T. J. Paul, 120 ft. S, 110 ft. W, NE cor. Blk. 35, Converse townsite in Sec. 10-9-13 ..... Location.
Gibson & Johnson, Inc.'s No. 2 Frost Lbr., 330 ft. S and W, NE cor. NW NE Sec. 19-9-13 ..... S.D. 1,901 ft. account high wtr.
H. C. Lesenger's No. 1 Bowman-Hicks, 330 ft. S, 330 ft. E, NW cor. Sec. 13-9-13 ..... Derrick.
Lee & Burnett's No. 1 Burckett, 330 ft. N and W, SE cor. NW SW Sec. 10-9-13 ..... Tested dry 1,795 ft; W.O.
Hy Rockmill's No. 1 Cassell, 330 ft. S, 330 ft. W, NE cor. Sec. 35-9-14 ..... Derrick.
Rockmill et al's No. 1 Bowman-Hicks, 330 ft. S and W, NE cor. NW Sec. 36-9-14 ..... S.D. 1,100 ft.
Nick Barbare's No. 1 Ryals, 330 ft. S and E, NW cor. Sec. 27-9-13 ..... Cmtd. 6-in. 1,515 ft.; top sand 1,535 ft; tested dry; W.O.; T.D. 1,555 ft.
Rockmill et al's No. 1 Patrick, 330 ft. S, 330 ft. E, NW cor. NE NW Sec. 21-9-13 ..... Rig up.
E. M. Self's No. 1 Paul, 330 ft. N and W, SE cor. NE SW Sec. 9-9-13 ..... Derrick.
Service Drlg. & Royalty Corp.'s No. 1 Whitney Corp., 330 ft. N and W, SE cor. Sec. 32-10-13 ..... Top marl 1,551 ft; S.D. fuel, 1,-600 ft.
Ben Youngblood et al's No. 1 Burket, 330 ft. S and W, NE cor. NE NW Sec. 10-9-13 ..... Derrick.
Roshko & Labarre's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE NE Sec. 35-8-11 ..... Fishing for bit; T.D. 1,072 ft.
Sabine Prod. Co.'s No. 1 Whiting Corp., 150 ft. N and E, SW cor. Sec. 4-9-13 ..... Top marl 1,470 ft. and cmtd. 6-in.; drlg. 1,730 ft.; tested S.W., small show gas 2,184 ft; S.D. 2,207 ft.
Skidmore & Mise's No. 1 Stoker, 440 ft. N, 225 ft. E, SW cor. SE NW Sec. 33-8-10 ..... S.D. 1,450 ft.
C. W. Smith et al's No. 1 Pattison, 330 ft. S and E, NW cor. SE NW Sec. 33-10-11 ..... Arranging D.S. test; D.D. 3,440 ft.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE Sec. 13-9-11 ..... S.D. fuel, 2,327 ft.
Triangle Drlg. Co.'s No. 1 La. Long Leaf Lbr. Co., 330 ft. N and W, SE cor. Sec. 11-6-11 ..... S.D. 4,013 ft.
W. M. Ungerman's No. 1 F. Cross, 53 ft. S, 146 ft. W, NE cor. SW SE Sec. 25-8-11 ..... Cmtd. 6-in. at 2,421 ft; drilled plug; S.D.

TENSAS PARISH

H. V. Schumacker's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor. Sec. 29-11-12 ..... Reaming to bottom; T.D. 3,645 ft.

UNION PARISH

E. S. Goens et al's No. 1 Frost Lbr. Co., 330 ft. S and E, NW cor. Sec. 17-22-2e ..... Drlg. shale 517 ft.
W. D. Wingfield et al's No. 1 Union Sawmill Co., 330 ft. N and E, SW cor. Sec. 27-23-1e ..... Began drlg. Nov. 13; cmtd. 10-in. 153 ft.
Wong Hing, tr.'s No. 1 Union Sawmill Co., 712 ft. W, 340 ft. N, SE cor. Sec. 15-22-1e ..... Top Wilcox 1,310 ft; top chalk 2,112 ft; D.S. test in 4 ft. of sand; T.D. 2,430 ft; S.W.

VERNON PARISH

Earl Jones' No. 1 Willis, 350 ft. N 400 ft. E, SW cor. SE SE Sec. 32-3n-9w ..... Began drlg. Dec. 31; S.D. 55 ft.
Llano Co-operative Colony's No. 1 fee, NW NE Sec. 34-3n-9w ..... Top Cockfield 3,333 ft.; S.D. 3,429 ft.

WEBSTER PARISH

J. E. Bundy's No. 1 Walker, 300 ft. S, 300 ft. W, NE cor. SE NW Sec. 11-18-10 ..... Derrick pattern.
R. E. Silvey et al's No. 1 Drake est., C NE NE Sec. 14-19-10 ..... Top chalk 2,563 ft; drlg. 2,590 ft.

WEST CARROLL PARISH

Mamie S. McCurry's No. 1 Richard & Donnaw, 300 ft. N and E, SW cor. Sec. 13-19-9e ..... Rigging up.

WINN PARISH

P.V.T. Oil Co.'s No. 1 Southern Paper Co., 150 ft. S and W, NE cor. SW Sec. 28-12-3 ..... S.D. for 8-in. csg. 1,050 ft.

Arkansas

CLEBURNE COUNTY

Frank S. Craver et al's No. 2 Doniphan Lbr. Co., 700 ft. N, 200 ft. E, SW cor. SW Sec. 34-11-9 ..... S.D; W.O. 3,400 ft.

COLUMBIA COUNTY

Kendall Oil Co.'s No. 1 Fullenweider, 300 ft. S and E, NW cor. NE NE Sec. 13-17-22 ..... Cmtd. 6-in. 2,460 ft.; claim show oil and gas 2,520 ft.; bailed down 1,100 ft.; S.W. show.

JEFFERSON COUNTY

R. V. Harrell et al's No. 1 McGoughey NW cor. Sec. 22-7-10 ..... Location.

LAFAYETTE COUNTY

Chas. McDonald's No. 1 Allen, 400 ft. N and W, SE cor. SE SW Sec. 3-19-26 ..... Top Nacatoch 1,765 ft.; top chalk 2,247 ft; S.D. 2,765 ft.
Sam E. Wilson, Jr.'s No. 1 Smith, 330 ft. N and E, SW cor. NW SE Sec. 24-19-25 ..... Derrick.

LITTLE RIVER COUNTY

American Portland Cement Co.'s No. 1 fee, 150 ft. S and E, NW cor. SW NE Sec. 21-12-32 ..... Cmtd. 10-in. 100 ft; drlg. 820 ft.
M. E. Sanderson's No. 1 Hale, 1,300 ft. E, 800 ft. N, SW cor. SE SE Sec. 22-12-29 ..... S.D. 1,405 ft.

MILLER COUNTY

Baker & McMurray; (was Roy Baker et al's) No. 1 Olivet, 200 ft. S, 200 ft. E, NW cor. NE NE Sec. 4-16-26 ..... Began drlg. Dec. 30; cmtd. 10-in. 29 ft.
Baker & McMurray's No. 1 Andrew Rose, 150 ft. S and W, NE cor. NE NW Sec. 4-16-26 ..... Location.
Capt. E. Byrd's No. 1 Miller Land & Lbr. Co., 1,320 ft. N and W, SE cor. Sec. 29-15-27 ..... Derrick.
John DeGrozier's No. 1 Andrew Rose, 150 ft. S and E, NW cor. N½ N½ NW NW Sec. 4-16-26 ..... Location.
Duluth-Ark. Oil Co.'s No. 1 Beck, 150 ft. N, 170 ft. E, SW cor. NW SW Sec. 34-15-26 ..... D.S. test dry 2,935 ft; D.S. test 2,-942 ft; S.D.
Fitzwater et al's No. 1 C. J. Norsen, SW cor. SE SW Sec. 20-15-27 ..... S.D. 1,960 ft.
Fitzwater et al's No. 1 Fouke, 150 ft. S and W, NE cor. Sec. 11-17-27 ..... Cmtd. 12½-in. 105 ft; S.D.
Lee L. Foster's No. 1 Geo. Jones, 660 ft. N, 200 ft. W, SE cor. NW NW Sec. 29-16-26 ..... Rig up.
Hapgood et al's No. 1 Rose, SE cor. NE SE Sec. 7-16-26 ..... Rigging up.
Jenkins Bros.' (was Roy Jenkins et al's) No. 1 B. F. Smith, 330 ft. W, 330 ft. N, SE cor. SE SE Sec. 32-15-26 ..... Location.
Jenkins Bros.' No. 2 Smith, 150 ft. S and W, NE cor. SE SE Sec. 32-15-26 ..... Location.
Jenkins Bros.' No. 3 Smith, 150 ft. S, 710 ft. W, NE cor. SE SE Sec. 32-15-16 ..... Location.
Jenkins Bros.' No. 4 Smith, 150 ft. S and E, NW cor. SE SE Sec. 32-15-26 ..... Location.
Chas. B. Lenz' No. 1 Dean, 125 ft. E, 200 ft. S, NW cor. SE Sec. 19-15s-25w ..... S.D. 3,500 ft.
Bob Manziel's No. 1 B. F. Smith, 150 ft. N and W, SE cor. S½ S½ NE NE Sec. 32-15-26 ..... Location.
Bob Manziel's No. 2 Smith, 150 ft. N, 660 ft. W, SE cor. NE SE Sec. 32-15-26 ..... Location.
Bob Manziel's No. 3 Smith, 150 ft. N and E, SW cor. NE SE Sec. 32-15-26 ..... Location.
C. H. Nelson et al's No. 1 Rose, 155 ft. S, 155 ft. W, NE cor. SE NW Sec. 4-16-26 ..... Moving in rig.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor. Sec. 11-20-27 ..... S.D.; W.O. 2,600 ft.
J. D. Reynolds' No. 1 E. L. Beck, 450 ft. E, 250 ft. N, SW cor. SW SE Sec. 35-15-26 ..... Location.
J. D. Reynolds' No. 1 B. F. Smith, 150 ft. N and W, SE cor. SE SW Sec. 33-15-26 ..... Location.
John C. Rogers' No. 1 Price, 330 ft. S, 400 ft. E NW cor. NW NW Sec. 17-16-25 ..... Rig up; S.D.
Sorrells & Tidwell's No. 1 Roy McCowan, 660 ft. S and E, NW cor. NW SE Sec. 22-15-28 ..... Set 10-in. 106 ft.; top Nacatoch 778 ft.; S. D.
C. E. Starr's No. 1 Barker, 330 ft. S, 150 ft. E, NW cor. NW SE Sec. 31-17-26 ..... Rigging up.
Steen Drlg. Co.'s (was Dennis & Cubage) No. 1 Head, 150 ft. E, 200 ft. N, SW cor. Sec. 20-15-26 ..... Claim sand 2,933-45 ft.; S.D. red beds 2,960 ft; D.S. test 2,960 ft; S.W; arranging new test.
Stephens, Byers & Sartain's No. 1 Lowe, 600 ft. S, 200 ft. E, NW cor. SE NW Sec. 14-16-27 ..... Drlg. 2,050 ft.

OUACHITA COUNTY

Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Sec. 36-12-18 ..... T.D. 1,015 ft.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW Sec. 3-4n-6w ..... Partly rigged up and S.D.

UNION COUNTY

E. H. Cassity, tr.'s No. 1 F. L. Dumas, 200 ft. N, 300 ft. W, SE cor. SE SW Sec. 10-17-16 ..... Began drlg. Dec. 26; cmtd. 10-in. 109 ft; drlg. 720 ft.
Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-16 ..... Began drlg. Dec. 23; cmtd. 10-in. 103 ft; S.D.
Mamie McCurry et al's No. 1 Rowland, 200 ft. N and E, SW cor. Sec. 9-19-11 ..... Derrick.
Pigeon Hill Oil Co.'s No. 1 Union Sawmill, 150 ft. S, 150 ft. E, NW cor. NE NE Sec. 9-17-12 ..... Drlg. 350 ft.
Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE Sec. 3-18-13 ..... S.D. 1,678 ft.

YELL COUNTY
(Cable tools)

Rainbow Oil & Gas Co.'s No. 1 Barrett SE cor. NE NE Sec. 16-5n-24 ..... Began drlg. Dec. 1; S.D. 100 ft.

East Texas

BOWIE COUNTY

Roy Anderson et al's No. 1 Breckenridge, center 465-ac. Breckenridge tract in Nancy Dycas Sur. ..... Reaming to bottom; arranging to core; T.D. 2,920 ft.
Tom Bell et al's No. 1 Mars, 1,800 ft. N, 2,160 ft. W, NE cor. 465-ac. tract in O. D. Watson Sur. ..... Cmtd. 10-in. 104 ft.
Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 2,248 ft.

CASS COUNTY

Davis & Digg's (now Joiner Pet. Co.'s) No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Latimer Sur. ..... S.D. 2,860 ft.
C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.

HARRISON COUNTY

Great Eastern Oil Co.'s No. 1 Rudd, Wm. Steele Sur. ..... 10-in. 96 ft; 8-in. 846 ft; small show gas 1,575 ft; S.D.
A. E. Roscoe et al's No. 1 Vever Towell, NW cor. H. T. Edwards' 240 acres in Louis Watkins Sur. ..... S.D. 2,200 ft.

MARION COUNTY

Baunoch Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Glet, Claunch & Dodson) ..... S.D. 4,580 ft.
Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D. 2,880 ft.
Starling & Preston's No. 1 Henderson, R. Bennington Sur. H.R.S. ..... S.D; chalk 1,956 ft. (C.D.).

PANOLA COUNTY

Carter-Skidmore et al's No. 1 C. J. Wooten et al. 755 ft. N, 185 ft. E, SW cor. C. J. Wooten tract in P. Martin Sur. ..... Location.

Hampton Drlg. Co.'s No. 1 Lloyd Thompson, 330 ft. N, 330 ft. W, NW cor. C. Flanagan Sur. in Allen Leach Sur. ..... Location.
Root-Skinner's No. 1 Daniel, 600 ft. N and W lines, Mrs. Gerrell 190-ac. tr., SW cor. Isabel Hanks Sur. ..... S.D. for D.S. 740 ft.
J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr., James Hanks Sur. ..... S.D. 3,055 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nichols & Daniels, center S 730 acres of 1,300-ac. tract in Hugh B. Shaw Sur. ..... Location.
Concord Oil Co.'s No. 1 Dillahunty, 500 ft. N, 200 ft. W, SE cor. Robt. Glass Sur. ..... S.D. 2,774 ft.
L. S. Priest et al's No. 1 R. W. Peck, 500 ft. W, 900 ft. N, most southerly SE cor. 220-ac. tract in Abram Wagley Sur. ..... S.D. 1,200 ft.

SHELBY COUNTY

J. H. Francis' (now Bob Chew et al's) No. 1 John Mims, Mary Smith Sur. ..... Tested dry 2,842 ft; S.D. 3,438 ft.
General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ..... S.D.; repairing rig 3,693 ft.
Oil News' No. 1 Pickering, C. H. Patterson Sur. ..... Reaming 3,360 ft.
Neil Lease & Oil Well Synd.'s No. 1 W. P. Harvey, NW cor. W. P. Harvey 130 ac. in W. P. Harvey Sur. ..... Derrick pattern.
Prairie Creek Crude Co.'s No. 1 Ellington, 150 ft. and 200 ft. W from SE cor. 42-ac. tr., J. Burleson Sur. ... Cmtd. 6-in. 3,360 ft; drlg. plug.
Ridgeway et al's (now Roy F. Smith's) No. 1 Polley, Domingues Gonzales Sur., 3,180 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tract .... S.D. 3,045 ft.
Redberry et al's No. 1 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ..... S.D. 2,375 ft.
Gray & Dunbar's No. 1 C. A. Hayden, 600 ft. N and W, SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ..... S.D. for wtr. 2,280 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

BOSSIER—BELLEVUE AREA

Company, well, farm name, section and block— Remarks:
H. I. Morgan's No. 2 Smith, 1,520 ft. N, 660 ft. W, SE cor., Sec. 22-19-11 ..... Drlg. red beds 3,874 ft.

CADDO—RODESSA AREA

United Gas Public Service Co.'s No. 1 Levee Board, 1,980 ft. N, 1,320 ft. E, SW cor. Sec. 27-23-16 ..... Drlg. lime 4,515 ft.

CADDO—BETHANY AREA

Calstex O. & G. Co.'s No. 1 Mrs. E. Augurs, 3,567 ft. N, 2,600 ft. E, SW cor. Sec. 19-16-16 ..... Cmtd. csg. 2,848 ft; T.D. 2,972 ft; drlg. plug.

CADDO—BLANCHARD AREA

Nick Barbare's No. 1 Puckett, 330 ft. S, 150 ft. W, NE cor. Sec. 8-18-16 ..... Coring 2,793 ft.
Louana O. & G. Co.'s No. 1 Carrie et al, 1,320 ft. W, 660 ft. S, NE cor. SE Sec. 32-19-16 ..... Tested estimated 5,000,000 ft. gas; arranging cmt. 6-in. 2,740 ft.
Louana O. & G. Co.'s No. 1 Waskom, 660 ft. N and E, SW cor. Sec. 29-19-16 ..... Set 10-in. 60 ft.
Pyramid Oil Corp.'s No. 2 C. C. Wheeler, 660 ft. S, 250 ft. E, NW cor. Sec. 4-18-16 ..... Location.

DE SOTO PARISH

Abernathy et al's No. 1 J. M. Nabors, 2,485 ft. E, 1,185 ft. N, SW cor. Sec. 32-13-11 ..... Tested dry 1,408 ft.; W.O.

OUACHITA PARISH

Carbon Consolidated's No. 7 Guthrie, 1,025 ft. N, 910 ft. E, SW cor. Sec. 23, in Sec. 50-20-4e ..... Began drlg. Dec. 28; cmtd. 12-in. 137 ft; 8-in. 757 ft; drlg. 1,800 ft.

SABINE PARISH—ZWOLLE

J. H. Askew's No. 3 Henderson, 400 ft. S, 150 ft. E, NW cor. SW SE Sec. 31-8-10 ..... Derrick.
H. H. Alvord's No. 1 Sabine State Bank, 330 ft. N and E, SW cor. NW SW Sec. 28-8-11 ..... Began drlg. Jan. 2; cmtd. 10-in. 40 ft.
Baird Bros.' No. 3 Martinez, 1,012 ft. S, 907 ft. E, NW cor. NW SW Sec. 2-7-13 ..... Tested dry 2,410 ft.; arranging to deepen.
Baird Bros.' No. 1 Tatum, SW NE Sec. 25-8-12 ..... Derrick.
Baird, Stone & McFaddin's No. 1 Duggan, 750 ft. S and W, NE cor. SE Sec. 14-7-11 ..... W.O.S.R. 2,637 ft.
C. W. Beene et al's No. 1 Cutrer, 200 ft. N and E, SW cor. NW Sec. 12-7-11 ..... Derrick.
Brown Lbr. Co.'s No. 1 fee, 330 ft. E, 520 ft. N, SW cor. NW NE Sec. 1-7-11 ..... Rigging up.
Cameron Oil Co.'s No. 1 G. Martinez, 845 ft. E, 540 ft. N, SW cor. Sec. 2-7-13 ..... Arranging cmt. 6-in. 2,064 ft.
Capitol-Crescent Oil Co.'s No. 1 Sabine State Bank, 990 ft. E, 838 ft. N, SW cor. NW SW Sec. 2-7-13 ..... Derrick.
T. B. Carpenter's No. 1 Cutrer, 330 ft. S and E, NW cor. SE Sec. 12-7-11 ..... Cmtd. 6-in. 2,546 ft.
Continental Drlg. Co.'s No. 1 Leone est., 70 ft. N, 200 ft. W, SE cor. Sec. 31-8-12 ..... Cmtd. 10-in. 40 ft; drlg. 1,250 ft.
Craig et al's No. 1 Ponder, 330 ft. N and E, SW cor. SE NW Sec. 15-7-11 ..... Began Dec. 12; S.D. 50 ft.
Crescent Drlg. Co.'s No. 1 Malbry, 660 ft. N and E, SW cor. SE NW Sec. 2-7-11 ..... Derrick.
Edwards & Hubier's No. 1 G. Martinez, 510 ft. S, 230 ft. E, NW cor. SW SW Sec. 2-7-13 ..... Derrick.
V. R. Hammons et al's No. 1 Travis, 540 ft. N, 150 ft. E, SW cor. NW SE Sec. 13-7-11 ..... Top marl 2,482 ft; drlg. 2,525 ft.
D. D. Holcomb's No. 2 Quayhaglew, 149 ft. N, 200 ft. E, SW cor. SE SE Sec. 11-7-11 ..... W.O.S.R. 2,652 ft.
E. L. Hunt's No. 2 Livingston, 330 ft. S and E, NW cor. SW NW Sec. 9-7-11 ..... Drlg. 2,210 ft.
H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW Sec. 14-7-11 ..... Arranging acid test 2,660 ft.
Kilgore et al's No. 2 Thomas, 330 ft. E, 330 ft. N, SW cor. NW NE Sec. 29-8-11 ..... Cmtd. 6-in. top marl 2,235 ft.
Loring Oil Co.'s No. 21 Bowman-Hicks, 450 ft. S, 275 ft. E, NW cor. SW NW Sec. 16-7-13 ..... S.W. show; D.S. stuck; T.D. 5,439 ft.
Martin et al's No. 1 Porter, 330 ft. S, 330 ft. W, NE cor. NW SW Sec. 30-8-11 ..... Derrick.
L. K. McGuffin's No. 2 Chadick, 200 ft. S, 200 ft. W, NE cor. NW SW Sec. 32-8-10 ..... Location.
H. C. Moulding's No. 1 Brumley, 330 ft. N, 330 ft. E, SW cor. NW NW Sec. 2-7-11 ..... Rig up.
Paul L. Miller's No. 3 Chadick, 550 ft. N, 430 ft. E, SW cor. SE NW Sec. 32-8-10 ..... Derrick.
C. D. Neff, tr.'s No. 2 Snell, 400 ft. E, 330 ft. N, SW cor. SE SE Sec. 9-7-11 ..... Top marl 2,368 ft; cmtd. 6-in. 2,270 ft; standing 1,100 ft. fluid; T.D. 2,588 ft.
E. F. Neely's No. 5 Ponder, 580 ft. S, 870 ft. W, NE cor. Sec. 16-7-11 ..... Standing 700 ft. fluid; W.O. 2,563 ft.
E. F. Neely's No. 6 Ponder, 450 ft. N, 150 ft. W, SE cor. SW NW Sec. 15-7-11 ..... Drlg. 2,320 ft.
Nowlin & Cherry's No. 1 Turner, 109 ft. N, 330 ft. W, SE cor. Fractional NW NW Sec. 4-7-11 ..... S.D. fuel 250 ft.
H. L. Patton's No. 1 Ponder, 330 ft. N and W, C Sec. 15-7-11 ..... Top marl 2,376 ft; S.D.
Pelican Nat. Gas Co.'s No. 16 La. Long Leaf Lbr. Co., 330 ft. S and W, NE cor. NE NW Sec. 31-8-11 ..... Cmtd. 6-in. top marl 2,320 ft.
Perkins & Babbin's No. 1 Hopkins, 260 ft. S, 270 ft. W, NE cor. NE SW Sec. 11-7-11 ..... Moving in rig.
G. N. Pharis, Tr.'s No. 1 Cutrer, 990 ft. S, 330 ft. E, center Sec. 13-7-11 ..... Derrick.
T. L. Phillips et al's No. 1 Haley, 536 ft. S and E, NW cor. NW SE Sec. 6-7-12 ..... Derrick.
Picayune Oil Co.'s No. 1 Porter, 330 ft. N and W, SE cor. NW SW Sec. 30-8-11 ..... Began drlg. Nov. 21; cmtd. 10-in. 40 ft.; S.D. 1,818 ft.
Sam Riggs, tr.'s No. 1 Darby, N half SE Sec. 21-7-11 ..... Cmtd. 7-in. 2,504 ft; T.D. 2,556 ft.
Ritchie Prod. Co.'s No. 1 Byrd, 663 ft. N, 399 ft. W, SE cor. NE NW Sec. 1-7-11 ..... Comp. pumping 50 bbls. 2,465 ft; tested dry; S.D. fuel.
Ritchey Prod. Co.'s No. 1 Stille, SE NW Sec. 26-8-12 ... Rig up.
Rotary Oil Corp.'s No. 1 Hale, 330 ft. S and E, NW cor. SW Sec. 1-7-13 ..... Drlg. 2,180 ft.
C. T. Ruffin's No. 1 Lilly, 545 ft. S, 300 ft. W, NE cor. NW NW Sec. 8-7-11 ..... Show oil; bailed dry; W.O. 2,376 ft.
E. M. Self's No. 1 Newton, 330 ft. S and W, NE cor. NE SE Sec. 1-7-11 ..... Rig up.
Scully & Beach's No. 4 Lafitte, 225 ft. E, 197 ft. S, NW cor. SW NW Sec. 13-7-11 ..... Derrick.
Scully & Beach's No. 5 Lafitte, 413 ft. E, 190 ft. W, NE cor. SW NW Sec. 13-7-11 ..... Arranging swab through tubing 150 ft. in oil; T.D. 2,492 ft.
Service Drlg. & Royalties Corp.'s No. 2 Smith, Sec. 12-7-11 ..... Top marl 2,626 ft; cmtd. 6-in. 2,628 ft; T.D. 2,814 ft.
Simmons et al's No. 1 Fleming, E½ SE SE Sec. 11-8-13.. Rigging up.
Scully & Beach's No. 3 Lafitte, 1,030 ft. S, 134 ft. E, NW cor. Sec. 13-7-11 ..... W.O.S.R. 2,492 ft.
F. E. Stancil's No. 1 Pouder, 273 ft. S, 397 ft. E, NW cor. NE SE Sec. 10-7-11 ..... S.D. 2,593 ft.
State Prod. Co.'s No. 1 Keazele, 150 ft. N and W, SE cor. NW SW Sec. 3-7-13 ..... W.O.S.R. 2,427 ft.
State Prod. Co.'s No. 1 Lites, 150 ft. S and W, NE cor. SE SW Sec. 28-8-11 ..... Derrick.
State Prod. Co.'s No. 1 Sabine Lbr. Co., 365 ft. N, 100 ft. W, SE cor. NW SW Sec. 3-7-13 ..... S.D. 2,427 ft.; 1,000 ft. oil.
The Texas Co.'s No. 1 Ponder, 1,490 ft. S, 200 ft. W, NE cor. Sec. 16-7-11 ..... Rig up.
E. M. Thomasson's No. 1 W. & H. Andries, 500 ft. N, 150 ft. W, center Sec. 23-7-11 ..... S.D. for csg. 2,300 ft.
J. H. Watt et al's No. 1 Pouder, 200 ft. S, 135 ft. W, NE cor. NW NE Sec. 15-7-11 ..... Derrick.
B. R. White et al's No. 1 Cooper, 330 ft. S and E, NW cor. SW NW Sec. 32-8-11 ..... Location.
B. R. White et al's No. 1 Stille, 620 ft. W, 205 ft. N, SE cor. NE SW Sec. 35-8-13 ..... Drlg. 1,205 ft.
Zwolle Prod. Co.'s No. 1 Tatum, 550 ft. E, 330 ft. N, C Sec. 25-8-12 ..... Drlg. 610 ft.

Arkansas

UNION COUNTY—URBANA

Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-16 ..... Derrick.
Wilson & Chapman's No. 2 Emily King, Sec. 3-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE ..... S.D. 1,730 ft.

East Texas

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ..... S.D. 3,359 ft.

Mississippi

HINDS COUNTY

Geo. P. Adkins et al's No. 1 Woodland Hills, 400 ft. N and W, SE cor. NW NE Sec. 26-6-1e ..... Derrick.
United Gas Public Service Co.'s No. 1 Ed Fondren, 330 ft. E, 660 ft. S, center Sec. 24-6-1e ..... Top black shale (Midway) 2,453 ft; coring 2,495 ft.

RANKIN COUNTY

J. A. Baker et al's No. 2 Rankin Side Dev. Co., Sec. 6-5-2e ..... S.D. high wtr.; top chalk at 2,461 ft.
J. A. Matson et al's No. 1 Warner, 1,100 ft. S, 200 ft. W, NE cor. W½ SE Sec. 14-5n-1e ..... Waiting on csg. 2,477 ft.

Wildcat Operations in Mississippi

AMITE COUNTY

Company, well, farm name, section and block— Remarks:
Magnolia State O. & G. Co.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e ..... S.D. 400 ft.

CLARKE COUNTY

F. X. Gowans et al's No. 1 Effring, SE NE Sec. 13-1n-14e. S.D. 104 ft.

COVINGTON COUNTY

Eastman Gardner Interest's (was Modisette Drlg. Co.) No. 1 Eastman-Gardner Lbr. Co., -No. 1 Minerals fee, NE NW Sec. 29-9n-6w ..... Rig up.

HINDS COUNTY

Cleve Love's No. 2 Security Realty Co., 1,855 ft. N, 782 ft. E, SW cor. Sec. 36-6-1e ..... T.D. 2,447 ft; set 6-in.; S.D. account of high wtr.
Love & Lancaster's No. 1 Elton Plantation, C SE Sec. 17-4n-1e ..... S.D. Eutow (Blossom) 5,050 ft.
National Gas Co. of Miss.' No. 1 M. C. Halder, 160 ft. E, 660 ft. N, SW cor. Sec. 16-6n-1e ..... S.D. for csg. 810 ft.

JASPER COUNTY

B. B. Jones' No. 1 Bank of Philadelphia, 660 ft. N and W, SE cor. Sec. 35-3n-12e ..... Drlg. black shale 3,798 ft.

JACKSON COUNTY

Gulf Ref. Co. of La.'s No. 1 Danciger, 2,440 ft. S, 1,120 ft. W, NE cor. Sec. 27-4s-8w ..... Began Dec. 6; core drlg.

LAMAR COUNTY

Chas. W. Gorr et al's No. 1 Jordan, NW cor. SW Sec. 1-2n-15w ..... Derrick.
Stauffer & Kouri's No. 1 Bond, SE NE Sec. 18-2n-14w ... D.S. stuck 3,025 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 22-15s-17w ..... S.D. in lime 2,335 ft; high wtr.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 200 ft. E, SW cor. SE Sec. 25-4n-11e ..... S.D. gumbo 2,257 ft.

RANKIN COUNTY

Home Oil Prod. Corp.'s No. 1 So. Jackson Land Co., 35 ft. S, 130 ft. W, NE cor. NW SW Sec. 23-5n-1e ..... S.W. and abd 2,500 ft.
Love Pet. Co.'s No. 2 Int. Lbr. Co., 450 ft. S and E, NW cor. Sec. 28-6n-2e ..... Arranging to deepen 2,665 ft.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e.. Derrick.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-8-9 ..... S.D. 750 ft.

WEBSTER COUNTY

P. J. McAlpine's No. 1 Hensley, Sec. 15-21-11 ..... Cored Tuscaloosa 1,800 ft; S.D.

WILKINSON COUNTY

Foster Creek Oil Co.'s No. 1 Foster Creek Lbr. Co., Sec. 13-2n-3w ..... Began drlg. Dec. 26; drlg. 320 ft.

Wildcat Operations in Alabama

BALDWIN COUNTY

H. H. Givens' No. 1 Ashman, Sec. 10-6-5e ..... Drlg. 500 ft.

CULLMAN COUNTY

C. V. Corey's No. 1 King, NE cor. NE NW Sec. 35-8-4w.. S.D. 710 ft.

LAMAR COUNTY

(Cable tools)

Company, well, farm name, section and block— Remarks:
De Soto O. & G. Co.'s No. 1 Gardner, NW NW Sec. 22-15s-16w ..... S.D.; shale 3,300 ft.

WASHINGTON COUNTY

South Ala. O. & G. Co.'s No. 1 Wilson, Sec. 26-1n-1w ..... Drlg. chalk 2,350 ft.

MARKET RECORD OF OIL SECURITIES

By A. E. Mockler

NEW YORK, Jan. 9.—Notwithstanding continued weakness in crude oil and widespread reductions in gasoline prices, the oils came in for strong support in security trading during the past week, and the market tone was definitely stronger.

There is considerable talk in financial circles over an impending sustained bull market, expected to develop within the next several weeks, and in some quarters the belief is expressed that the oils are being groomed to assume the leadership in the upward move.

S.O.N.J.

Standard Oil Co. (New Jersey) has announced that under its stock acquisition plan employes may acquire shares during the first half of 1933 at $30 a share. The price in the first half of 1932 was $30.50. For the last half of 1932 employes paid $23.50, the lowest price on record under the plan and the first time in the company's history that an employe stock offering had been made below par of $25.

H. F. Wilcox

H. F. Wilcox Oil & Gas Co. and wholly owned subsidiaries report for the nine months ended September 30 net loss of $265,532, after taxes and charges, against net loss of $718,862 in the first nine months of the previous year. For the September quarter net loss was $269,163 after taxes and charges, against net loss of $44,741 in the previous quarter.

Bandini Petroleum

Bandini Petroleum Co. has declared the regular monthly dividend of 5 cents a share, payable January 20 to stock of record December 31.

Sun Oil

The New York Stock Exchange has authorized the Sun Oil Co. to list 46,343 additional no-par shares upon notice of issuance.

Consolidated Royalty

Consolidated Royalty Oil Co. has declared a quarterly dividend of 5 cents per share on its $10 par stock, payable January 25 to stock of record January 14.

Southland Royalty

Southland Royalty Co. has declared a quarterly dividend of 5 cents per share, payable January 15 to stock of record January 3.

Steaua Romana

Steaua Romana (British), Ltd., reports for the year ended June 30, 1932, net profit of £81,107, after charges and taxes, as compared with £69,687 in the previous fiscal year. The company has declared a final dividend of 2 per cent on the ordinary shares, making a total dividend of 4 per cent for the year, unchanged from the previous year.

Midwest Refining

Midwest Refining Co. has declared a liquidating dividend of $125.725 per share on its $50 par common, payable in 1932.

British Burmah

British Burmah Petroleum Co., Ltd., reports for the year ended July 31, last, net profit of £44,110 after taxes and charges, as compared with £124,935 in the previous fiscal year.

Apex Trinidad

Apex (Trinidad) Oilfields, Ltd., has declared a final dividend of 17½ per cent, less British income tax, making a total dividend of 25 per cent for the year ended September 30, 1932.

Columbia G. & E.

Columbia Gas & Electric Co. has declared the usual quarterly stock dividend equivalent to 25 cents per share on its no-par common, and the regular quarterly dividends of $1.50 on its 6 per cent "A" preferred, $1.25 each on its $5 no-par preferred and 5 per cent convertible preferred, all payable February 15 to stock of record January 20.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb based on closing quotations for Wednesday, was as follows:

June 29	12.09	Oct. 5	14.44
July 6	11.75	Oct. 11	14.31
July 13	12.19	Oct. 19	14.37
July 20	12.47	Oct. 26	14.43
July 27	14.50	Nov. 2	13.99
Aug. 3	15.13	Nov. 9	14.36
Aug. 10	17.21	Nov. 16	15.15
Aug. 17	16.21	Nov. 23	14.61
Aug. 24	17.19	Nov. 30	14.04
Aug. 31	17.24	Dec. 7	13.31
Sept. 7	18.50	Dec. 14	14.21
Sept. 14	15.90	Dec. 21	13.53
Sept. 21	16.72	Dec. 28	13.50
Sept. 28	15.55	Jan. 4	13.89

Tide Water

Tide Water Oil Co. has declared the regular quarterly dividend of $1.25 on its 5 per cent preferred stock, payable February 15 to stock of record January 16.

Simms

Simms Petroleum Co. has reduced outstanding stock since September 30, 1930.

Independent Oils on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended Dec. 31)

1932 High	1932 Low	Week ended Dec. 31 Sales	Week ended Dec. 31 High	Week ended Dec. 31 Low	Close Jan. 4	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
⅝	¼	11,700	⅜	¼	..	American Maracaibo	(sh)	700,000	N.P.	....	.....	8⅝	1⅛	4½	½	1⅝	¼
3¾	⅝	900	1⅝	1¼	..	Arkansas Natural Gas	(sh)	4,084,225	N.P.	....	.....	26	3¾	16⅜	4⅝	6½	1⅞
3⅜	⅛	6,200	1½	1	1⅜	Arkansas Natural Gas "A"	(sh)	3,522,521	N.P.	....	.....	24¾	6½	16⅝	4⅝	6¾	1⅞
5⅝	1½	200	3	2⅝	..	Arkansas Natural Gas pfd.	(sh)	2,193,000	$10	....	4- 1-32	9	4	8⅛	6¼	7	3⅞
9¾	6¾	No sales	..	..	..	British American Oil Corp.	(sh)	2,622,642	N.P.	20cQ	12-14-32	62	7⅛	23	13⅜	16⅞	6¼
¾	¼	1,800	¼	¼	..	Carib Syndicate		$131,250	25c	....	.....	4⅞	1	2¾	⅝	2⅝	¼
6⅞	1¼	46,919	2⅝	2¼	2⅜	Cities Service	(sh)	36,418,721	N.P.	....	6- 1-32	68⅛	20	44¼	13	20⅜	5
53⅜	10	2,200	14⅞	12	15½	Cities Service pfd.	(sh)	1,125,931	N.P.	....	6- 1-31	98¾	84	93⅞	78¼	84¾	35⅝
¼	1/16	600	1/16	1/16	..	Colombia Syndicate		3,250,000	N.P.	....	.....	..	..	21	3⅜	7⅛	1
2⅛	½	434	¾	¾	1	Columbia Oil & Gasoline v.t.c.	(sh)	$2,000,000	$1	....	.....	2	½	¾	⅛	½	1/16
1¼	¼	1,100	⅜	¼	..	Colon Oil	(sh)	2,200,000	N.P.	....	.....	15	3⅞	8¼	1⅛	3½	¼
2	1	500	1¼	1⅛	..	Consolidated Royalty Oil Co.		$5,527,880	$10	5cQ	1-25-33	11⅛	2½	5⅞	2	2¾	1
2⅞	¼	117	1½	1¼	..	Cosden Oil	(sh)	323,950	N.P.	....	.....	135	42	74¾	1¼	3⅝	⅝
7⅛	1⅝	500	3¼	2⅞	..	Darby Petroleum	(sh)	609,696	N.P.	....	10-15-30	26	6½	21⅝	4¼	5	1⅝
3	1	3,100	1⅝	1⅛	..	Derby Oil & Refining	(sh)	500,000	N.P.	....	.....	11	2	11	2	6	1½
24½	10½	No sales	..	..	..	Derby Oil & Refining pfd.		48,500	N.P.	....	.....	44	20¾	60	30	40⅛	25
44¾	23	3,057	27½	26½	27⅞	Gulf Oil Corp.	(sh)	4,504,921	$25	....	10- 1-31	209	115	166⅞	58½	75½	25⅝
4½	1½	100	1½	1½	1¾	Indian Terr. Illum. Oil "B"	(sh)	7,090,037	N.P.	....	.....	..	..	53½	12⅝	16⅞	5
¼	1/16	3,500	⅛	1/16	..	Intercontinental Petroleum		$5,682,000	$5	....	.....	2⅞	⅜	1¾	⅜	⅝	⅛
1	⅜	200	⅝	⅝	..	Kirby Petroleum	(sh)	750,000	N.P.	....	.....	3⅝	1¼	3	⅞	1⅞	¼
¾	⅛	2,700	⅛	⅛	..	Leonard Oil & Development		$50,000,000	$25	....	.....	14⅞	2½	5	¾	2	½
2½	½	5,300	¾	⅛	⅜	La. Land & Exp.	(sh)	3,000,000	N.P.	....	.....	6⅛	1	4¾	½	1½	¼
3½	⅞	No sales	..	..	..	Lion Oil & Refining	(sh)	250,000	N.P.	....	10-27-30	38⅞	18	29	4⅞	6¾	1½
11	3¾	4,000	7	5⅜	7	Lone Star Gas	(sh)	5,000,000	N.P.	16cQ‡	9-30-32	67⅞	28	55⅞	19⅝	25	5½
8	3¾	500	8	7¾	..	Margay Oil Corp.		160,000	N.P.	25cQ	7-11-32	38½	14	16	3	5	1⅞
5¼	1⅝	2,200	3¼	2⅝	..	Memphis Natural Gas	(sh)	920,000	N.P.	....	4-15-32	24	8⅛	22¼	7½	12⅛	4½
3⅜	1½	600	2	1½	..	Mexico-Ohio Oil Co.		500,000	N.P.	....	.....	6⅜	2¼	7½	1¾	4⅞	1½
⅜	⅛	100	¼	¼	..	Mountain & Gulf		$4,000,000	$1	....	4-15-31	1½	½	¾	⅜	½	⅛
4¾	2⅛	1,100	3⅜	3	3¼	Mountain Producers		$1,682,182	$10	20cQ	1- 3-33	22⅞	7	12⅛	3⅜	5⅞	2
14⅝	8	1,100	13	12½	..	National Fuel Gas	(sh)	3,810,183	N.P.	25cQ	1-16-33	43⅞	23	41⅜	19⅜	26½	9⅜
⅞	¾	1,297	⅝	½	..	New Bradford Oil		$7,224,186	$5	....	4-15-31	5	2½	3½	1⅛	1½	½
1¼	⅜	3,329	1	⅞	..	New Mexico and Arizona		$1,000,000	$1	....	.....	9⅜	2¼	7¼	1½	3	⅝
1½	⅝	1,200	⅞	¾	..	North Central Texas	(sh)	262,446	$5	....	9- 2-30	18½	6⅛	11¼	2½	3¼	⅝
⅝	1/16	500	1/16	1/16	1/16	North European Oil	(sh)	1,372,391	N.P.	....	.....	..	..	6¼	⅝	2⅛	¼
8	3	100	3	3	..	Pacific Western Oil	(sh)	1,000,000	N.P.	....	.....	26⅝	12¼	19½	5½	15	2⅜
⅝	1/16	1,300	⅜	1/16	⅛	Pantepec Oil	(sh)	1,595,500	N.P.	....	.....	10½	1⅞	4⅜	⅞	2	⅝
½	1/16	1,200	⅜	⅜	..	Reiter-Foster	(sh)	388,584	N.P.	....	12- 2-29	8½	1⅛	5⅝	1	3⅛	¼
1	⅛	300	¼	¼	..	Richfield Oil pfd. x.w.	(sh)	399,950	$25	....	.....	31½	22	23½	6½	11	¼
2⅛	⅝	100	⅞	⅞	..	Ryan Consolidated	(sh)	296,931	N.P.	....	.....	11	2	8⅝	2	3	⅝
⅞	⅛	83	½	½	..	Salt Creek Consolidated	(sh)	1,286,300	$10	....	4- 1-31	5⅞	1⅞	2½	½	1⅝	⅛
5½	2⅞	1,372	4	3⅝	..	Salt Creek Producers	(sh)	1,496,859	$10	25c	11- 1-32	25⅞	9	15¼	5¼	7⅜	2⅜
⅝	¼	5,502	⅜	¼	⅜	Sunray Oil	(sh)	1,163,185	$5	....	4-15-31	12	5⅝	10	2	5¼	¼
10½	4½	200	7½	7⅜	..	Texon Oil & Land	(sh)	936,036	N.P.	25c†	12-30-32	23	7¼	19½	8	12⅞	2½
1/16	⅛	2,300	1/16	1/16	1/16	Venezuelan Petroleum	(sh)	755,090	$5	....	2-15-30	6½	1¾	4½	⅝	1⅞	⅜
2⅜	1⅛	200	2⅜	2⅛	..	Woodley Petroleum		$500,000	$1	....	3-31-29	9½	2	5	½	3½	1⅛
1⅜	½	1,100	⅞	¾	⅜	Y Oil & Gas		100,000	N.P.	....	.....	2⅞	½	2½	⅝	2¼	¼

*Ex-dividend. †Plus extra dividend of 25 cents. ‡Payable in stock. §Paid in lieu of regular cash dividend of 2 per cent.

by 340,481 shares, the company reports in declaring a quarterly dividend of 25 cents per share. The average cost of acquisition of the stock was $5.50 a share. For the 10 months ended October 31, the company experienced consolidated net loss of $276,404, after expenses, depreciation, taxes, etc., the balance sheet as of October 31 showing a profit and loss surplus of $2,552,190, out of which the current dividend will be paid.

Salt Creek Producers

Salt Creek Producers Association has declared a quarterly dividend of 25 cents per share, payable February 1 to stock of record January 16.

Signal Royalties

Signal Royalties Co. has declared a quarterly dividend of 15 cents per share on its "A" stock, payable January 15 to stock of record January 10.

Amerada

Amerada Corp. has declared a quarterly dividend of 50 cents per share on its common stock, payable January 31 to stock of record January 14.

Lone Star

Lone Star Gas Corp. has declared the regular quarterly dividend of $1.62½ on its 6½ per cent preferred, payable February 1 to stock of record January 20.

Standard Oil Stocks on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended Dec. 31)

1932 High	1932 Low	Week ended Dec. 31 Sales	Week ended Dec. 31 High	Week ended Dec. 31 Low	Close Jan. 4	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
7	6	No sales	..	..	..	Borne Scrymser		$1,000,000	$25	....	10-15-30	46½	25	25	11¼	16	6
35	17½	80	23½	23½	..	Buckeye Pipe Line		$10,000,000	$50	75cQ	12-15-32	74½	55	69	39⅞	56	30
90	53	60	86½	86½	..	Chesebrough Mfg.		$3,000,000	$25	$1Q‡	12-30-32	210	130	184⅞	104¼	129½	75
3⅛	1¾	7,100	2⅞	2⅝	2¾	Creole Petroleum	(sh)	5,977,872	N.P.	....	.....	11¾	5⅜	7⅞	3	3⅞	1⅝
35	18	200	24	24	..	Eureka Pipe Line		$5,000,000	$100	$1Q	11- 1-32	70½	40	54¾	26	36	19
55	35⅝	600	45	43¼	44½	Humble Oil & Refining		$74,103,300	$25	50cQ	1- 1-33	128	74⅛	119	57¼	72	44¼
10⅞	6¼	5,000	7⅞	7¼	8⅛	Imperial Oil of Canada	(sh)	26,557,496	N.P.	12½cQ	12- 1-32	41	22	30	15	18¼	7⅝
7½	2¾	1,000	3¼	3	..	Indiana Pipe Line		$3,000,000	$10	10c8.A.§	11-15-32	41⅞	26	41	14½	21⅜	5½
12¼	8	3,400	10½	10⅛	10⅝	International Petroleum	(sh)	14,247,088	N.P.	25cQ	12-15-32	30⅝	15	24	11⅝	15½	7⅝
10½	6	400	7	6½	7⅜	National Transit		$6,362,500	$12.50	20cQ	12-15-32	25⅛	10⅛	22⅜	11½	17½	5
6	2¼	200	3¾	3¾	..	New York Transit		$500,000	$5	20c8A§	10-15-32	17½	10	21⅜	10⅛	14½	5⅜
5½	3⅛	800	5⅜	4⅞	5⅝	Northern Pipe Line		$1,200,000	$10	25c	1- 2-33	63	41	54	26¼	35½	20
16½	9⅝	2,300	12⅝	11	..	South Penn Oil		$30,000,000	$25	25cQ	12-30-32	60¼	35⅛	45⅞	16⅛	23⅞	9¼
10	3¾	200	3¾	3¾	3½	Southern Pipe Line		$1,000,000	$10	15cQ	12- 1-32	22½	13	20⅞	8⅜	17	7
37	27	No sales	..	..	..	Southwest Pennsylvania Pipe Line		$1,750,000	$50	$1Q	12-31-32	70	60	64	32	42½	25
25⅛	13⅛	32,908	22	21⅜	22⅛	Standard Oil of Indiana		$424,914,895	$25	25cQ	12-15-32	63	45	59⅞	30	38½	13½
15⅞	8⅞	7,675	11	10	10½	Standard Oil of Kentucky		$25,654,516	$10	30cQ	12-31-32	46⅞	29	40½	18⅝	23⅝	12⅜
19	10¼	300	14⅞	13½	..	Standard Oil of Nebraska		$4,770,550	$25	25cQ	12-20-32	50¼	40	48⅞	34⅝	36½	16
30⅛	15½	1,010	22¾	20	..	Standard Oil of Ohio		$18,811,675	$25	37½cQ	1- 3-33	129	60	108½	43¼	62½	23
2	1⅝	No sales	..	..	..	Swan-Finch Co.	(sh)	34,480	$25	....	1-15-29	18	10	10	4	4½	1

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus $1 extra. §Plus 5 cents extra.

Transactions in Oil Shares on New York Stock Exchange

Quotations Compiled by Francis, Bro. & Co., Members of the New York Stock Exchange and Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended Dec. 31)

1932 High	1932 Low	Week ended Dec. 31 Sales	Week ended Dec. 31 High	Week ended Dec. 31 Low	Close Jan. 4	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
22¾	12	700	21½	19¾	20⅝	Amerada Corp.	(sh)	844,200	N.P.	50cQ	10-31-32	42⅝	17½	31½	16½	23	11¼
16½	6½	20	14¾	14¾	..	Associated Oil		$44,356,180	$15	25cQ	12-31-32	47¼	34½	51	30	31	8⅝
21⅞	8⅝	9,400	16⅝	15⅜	17⅛	Atlantic Refining		$67,416,050	$25	25cQ	12-15-32	77⅞	30	51⅜	16⅝	23⅝	8⅝
7	3⅜	19,000	4	3⅜	4	Barnsdall Corp. A		$11,203,895	$5	....	5-11-31	49⅛	20	34	8⅝	14½	4
21	4¼	30,750	16½	15¾	16⅞	Columbia Gas & El.	(sh)	11,684,220	N.P.	25cQ	11-15-32	140	52	87	30⅝	45⅝	11⅝
12½	9	No sales	..	..	12	Colonial Beacon Oil	(sh)	1,444,970	N.P.	....	12-22-22	32⅞	12½	20⅜	8¾	10½	7½
9	4	40,200	5½	5	5⅜	Consolidated Oil Corp.	(sh)	14,218,835	N.P.	....	.....	..	..	..	..	..	..
9⅜	3⅝	14,163	6	5¼	6⅛	Continental Oil of Delaware	(sh)	4,738,594	N.P.	....	12-15-27	47⅞	18	30½	7¾	12	5
35¾	9½	9,601	17	15⅛	17½	General American Tank Car	(sh)	751,638	N.P.	25cQ	10- 1-32	123¾	75	111⅞	53⅛	73⅛	28
15½	4¾	1,500	7¾	6⅛	7¼	General Asphalt	(sh)	413,333	N.P.	....	6-15-32	94¾	42¼	71½	22⅜	47	9⅝
28¼	8¾	400	13½	13¼	..	Houston Oil		$24,968,600	$100	....	10-17-30	109	26	116⅞	29¼	68½	15⅝
2¾	1	1,500	2	1⅞	2	Indian Refining		$12,564,070	$10	....	10- 1-30	53	13⅛	17	2	4⅝	1⅛
2¼	½	3,100	⅝	½	..	Louisiana Oil Refining	(sh)	1,309,069	N.P.	....	.....	18	7	12	3½	4½	1
1½	¾	700	½	⅝	..	Maracaibo Oil	(sh)	330,000	N.P.	....	.....	18½	5⅛	10⅜	1⅜	3¾	⅛
8⅞	3¾	13,338	4¾	4¼	4⅝	Mid-Continent Petroleum	(sh)	1,857,912	N.P.	....	2-16-31	39⅞	22⅛	32	11	16⅜	5
13	3½	400	6	6	..	National Supply of Delaware	(sh)	390,879	$50	....	5-15-31	144	98½	124⅜	60	70¼	5
11	5	20,229	7	6	7	Ohio Oil	(sh)	6,648,052	N.P.	10cQ	12-15-32	79⅞	64¼	32	16	19½	5⅛
14	6	200	12	12	..	Pan American P. & T.	(sh)	1,000,000	$5	20cQ	12-15-32	69	40½	46½	42	35⅛	20
14½	7¼	200	12	12	..	Pan American P. & T. "B"	(sh)	2,474,288	$5	20cQ	12-15-32	69¼	40½	67¾	30	36½	18
1¼	¼	200	⅝	⅜	..	Panhandle P. & R.	(sh)	199,370	N.P.	....	.....	15¼	3	12¾	1¾	4¼	⅝
8⅛	2	12,952	5¼	4½	5⅛	Phillips Petroleum	(sh)	4,156,908	N.P.	....	1- 2-31	47	24¼	44⅝	11½	16⅝	4
¾	¼	2,410	⅜	¼	⅜	Pierce Oil Corp.		$29,622,831	$25	....	.....	3⅜	1	2½	½	1½	¼
1⅜	½	19,300	⅞	½	..	Pierce Petroleum	(sh)	2,500,000	N.P.	....	2-16-31	5⅞	½	7⅛	1⅛	3⅜	½
12½	8½	900	9	8⅝	8¾	Plymouth Oil Co.	(sh)	1,050,000	$5	75cA	.....	..	..	..	..	..	..
9½	3½	No sales	..	..	..	Prairie Oil & Gas		$61,035,800	$25	....	3-31-31	65⅜	40½	54	11¼	20⅜	4⅛
12¼	5½	1,100	7½	7½	..	Prairie Pipe Line		$101,250,000	$25	....	6-30-31	65	45	60	16⅝	28½	5⅞
1⅝	⅛	4,400	⅜	¼	..	Producers & Refiners		$37,438,950	$50	..	9-15-23	25⅞	4	11⅞	1	6	1
9¾	1	140	4	3¼	..	Producers & Refiners pfd.		$2,845,350	$50	....	5- 4-25	46⅜	25½	40	11½	16	3
6½	2⅞	12,100	3½	3	3¼	Pure Oil		$75,959,250	$25	....	9- 1-30	30⅜	20	27¼	7⅝	11⅞	3¼
1⅜	¼	1,700	½	⅜	..	Richfield Oil (new)		$52,410,875	N.P.	....	.....	49⅝	20	9⅜	4⅛	6⅜	⅝
23¾	12⅛	2,100	20¼	19⅛	21⅜	Royal Dutch N. Y.	(sh)	611,303	....	80½c†	8- 5-32	64	43⅛	56½	36⅞	42⅝	13
20⅜	6⅝	13,425	20⅜	17⅞	20⅛	Seaboard Oil of Delaware	(sh)	1,244,383	$4	10cQ	9-15-32	59⅜	8¼	37	9¾	20⅜	5½
16⅜	8	265	14⅝	14⅝	..	Shell Transport & Trading Co.		£23,985,000	£1	53c†	7-22-32	51½	40⅝	48⅜	26	34	5
8¾	2½	18,600	5¼	4½	5½	Shell Union Oil	(sh)	13,066,497	N.P.	....	6-30-30	31⅝	19	25½	5¼	10¼	2½
65¼	18	1,750	38¼	35½	40½	Shell Union Oil pfd.	(sh)	400,000	$100	..	7- 1-31	108¼	93	106¼	55	78	15
7½	3¼	1,400	5⅞	5⅝	..	Simms Petroleum	(sh)	600,000	$20	25cQ	1-16-32	40⅛	15	37	5⅝	11	3½
5⅜	2½	3,900	3½	2⅞	..	Skelly Oil		$27,441,250	$25	....	12-15-30	40½	28	12	10⅛	12⅞	2
33½	12	800	25½	24	25⅛	Skelly Oil pfd.	(sh)	119,800	$100	....	5- 1-31	..	..	99¾	42	62	10
12¼	5¼	86,140	7½	6¼	7⅝	Socony-Vacuum		$793,613,588	$25	10cQ	12-15-32	..	..	106⅝	98	106	87⅛
100½	81	1,300	100½	99½	100⅜	Standard Oil Export pfd.	(sh)	764,885	$100	$2.50SA.	6-30-32	..	..	..	..	21	8⅝
31⅞	15⅛	16,700	24½	23⅜	25	Standard Oil of California	(sh)	13,102,900	N.P.	50cQ	12-15-32	81⅞	51½	75	42½	51¾	23⅛
16½	7	2,100	15⅜	15	15	Standard Oil of Kansas		$8,000,000	$25	....	3-16-31	33¾	18	49	14⅜	19	7¾
37⅜	19⅞	31,550	31⅝	29⅛	31	Standard Oil of New Jersey		$637,961,700	$25	25cQ	12-15-32	83	49	84⅞	32½	52½	26
39⅞	24¾	319	36½	36⅛	..	Sun Oil	(sh)	1,416,869	N.P.	25cQ	12-15-32	68⅝	55	70	39	45¼	26¾
2	¾	3,100	¾	½	¾	Superior Oil Corp.	(sh)	766,979	N.P.	....	12-20-30	24	5¼	9⅝	¾	1¾	⅜
18¼	9¼	33,106	14½	12	13¾	The Texas Corporation		$246,204,900	$25	25cQ	1- 1-33	71⅞	50	60½	28¼	36¼	9⅞
4	1½	2,500	1⅝	1½	1⅞	Texas Pacific Coal & Oil Co.		$9,304,890	$10	..	12-31-29	23⅞	9½	14½	4	6½	1⅞
10	5	No sales	..	..	..	Tide Water Oil	(sh)	2,191,823	N.P.	25cQ	12-31-32	40	14	31	13	18	9⅞
62	30	800	46	46	..	Tide Water Oil pfd.	(sh)	199,446	N.P.	$1.25Q	1- 1-33	97½	85⅛	94⅞	71	83	30
5⅝	2	8,866	3⅝	3	3½	Tide Water Associated	(sh)	5,560,424	N.P.	....	2-16-31	23½	10	17¾	5⅞	9	2⅛
60	20	3,000	42¼	37	41½	Tide Water Associated pfd.		$73,284,500	....	$1.50Q	1- 1-33	90⅞	74⅛	89¾	55	68	20½
15⅜	8	3,300	9⅞	9¼	11⅝	Union Oil of California		$109,651,750	$25	25cQ	11-10-32	57	42⅛	50	10⅛	26⅝	11
19¼	11¾	No sales	..	..	..	Union Tank Car	(sh)	1,254,048	N.P.	35cQ	12- 1-32	163¾	121⅞	38½	23	25⅛	16
2¼	½	6,940	1½	1	..	Warner-Quinlan	(sh)	632,948	N.P.	....	7- 1-30	42⅞	15	27	4¼	7⅝	⅜
8¾	2¾	1,600	3	2¾	3	Wilcox Oil & Gas	(sh)	428,967	$5	...	5-10-28	29¾	12⅞	21	6½	9⅝	2"

*Ex-dividend. †Interim dividend for 1931. ‡Plus extra dividend of 25 cents. A—Paid this year; no regular rate.

In comparing highs and lows for the several years in the three tables, it will be necessary to take into consideration cases where there have been stock split-ups

PERSONAL PARAGRAPHS

John Sutherland, of Oil Springs, Ontario, has returned from the Peruvian fields.

• • •

E. C. Yanda, of the St. Louis, Mo., office of the Wheeling Steel Corporation, was in Tulsa last week.

• • •

Leslie Eastman, Phillips Petroleum Company, San Angelo, Tex., is in Houston, where he is looking things over for his company.

• • •

K. C. Frazier, Dallas, Tex., representative of the Colombian Alkali Corporation, called on oil company buyers in Tulsa during the week.

• • •

E. L. Kirkpatrick, branch manager, Allis-Chalmers Manufacturing Company, tractor division, Wichita, Kans., visited relatives in Tulsa recently.

• • •

George Hill, of Hill & Hill, Fort Worth, Tex., operators, is spending considerable time in Houston, Tex., looking after coastal interests of the firm.

• • •

E. H. Salrin, president of the Tide Water Oil Company, has established offices at Houston, Tex., and will divide his time between there and Tulsa.

• • •

Mr. and Mrs. Ed Campbell, formerly of Petrolia, Ontario, have returned from Peru, where Mr. Campbell was on the International Petroleum Company staff.

• • •

C. R. Summers, Abbeville, La., has been designated by the Pure Oil Company, Chicago, Ill., to represent that company on the Louisiana code committee.

• • •

J. W. Billings, sales manager, Birmingham Tank Company, Birmingham, Ala., and J. B. Gibson, sales representative, were visitors in Tulsa during the past week.

• • •

William Rawson, a Petrolia, Ontario, oil operator and formerly a well known driller in foreign fields, was recently elected a member of the Petrolia town council for 1933.

• • •

Mr. and Mrs. Dalton Hinman and children have returned to Petrolia, Ontario, from Negritos, Peru, where Mr. Hinman was on the staff of the International Petroleum Co.

• • •

Miss Florence Lundell, librarian for the technical department, Tulsa Public Library, has just returned to Tulsa after spending the holidays in Baltimore, Md., with relatives.

• • •

C. B. Bunte, independent operator and discoverer of the Keeran Field, Victoria County, Texas, is now connected with the geological department of the Shell Petroleum Corporation, Houston, Tex.

• • •

Dale Scruggs and wife have returned from Mexico where Mr. Scruggs was sent by his company a few months ago. Mr. Scruggs is in the geological department of the Continental Oil Company, Ponca City, Okla.

• • •

Mark A. Hanna, chief paleontologist of the Gulf Production Company, Houston, Tex., has returned from Boston, Mass., where he attended the meeting of the American Society of Paleontologists. Mr. Hanna was elected vice president of the society for the ensuing year.

• • •

Edward T. Stotesbury, Harold Stanley and Landon K. Thorne have resigned from the board of United Gas Improvement Company. They are succeeded by Charles D. Dickey, of the Drexel Banking interests; Floyd L. Carlisle, of New York; and Edward B. Leisenring, president of Westmoreland Coal Company. William W. Bodine, son of the late Samuel T. Bodine, was also elected to the United Gas Improvement board, succeeding his father.

H. Gwynne Trew has resigned his directorship of the Spies Petroleum Company, Ltd.

• • •

Earl Himes, National Stamping & Enameling Company, St. Louis, Mo., was a visitor in Tulsa last week.

• • •

Dr. Emil Ott, consulting geologist of San Angelo, Tex., has returned from a visit with friends in St. Louis, Mo.

• • •

S. D. Day, representative for the Barrett Company, Houston, Tex., spent several days in Dallas and Fort Worth, Tex., during the week.

• • •

William Mackrell, employed on the F. W. Howlett & Sons' oil property near Petrolia, Ontario, had a thumb badly crushed recently while pulling a pump. This is Mr. Mackrell's first accident in 37 years of oil field work.

Men of the Industry

JAMES A. MOFFETT

James A. Moffett, vice president and member of the board of directors of the Standard Oil Company (New Jersey), comes from a Standard Oil family, and has had a thorough experience in the industry. He was born in 1886, a son of the late James A. Moffett, former president of the Standard Oil Company of Indiana.

Completing his education at Princeton University, the younger Mr. Moffett joined the Vacuum Oil Company organization in 1906 as junior clerk. He passed through jobs in the sales department, two of the company's refineries, lubricating sales department and pipe line division. He was assistant to Col. Fred W. Weller in the construction of the company's Bayway refinery and later in the management of the Parkersburg plant, and was a member of the domestic sales committee.

On the organization of the Standard Oil Company of Louisiana in 1909 Mr. Moffett was made manager of the sales department and assistant to the president. He was made a director of the Louisiana company two years later. In 1919 he was elected to the board of the Standard Oil Company (New Jersey) as director in charge of foreign and domestic marketing, at the age of 33, giving him the distinction of being the youngest man ever elected to the directorate of the holding company. He became vice president in June, 1924.

C. I. Maldaresco has been named director-general of the Rumanian State Pipe Line Department.

• • •

Mrs. Matt Collins, of Petrolia, Ontario, left recently to join her husband in the Trinidad fields.

• • •

Sir Henri W. A. Deterding, managing director of the Royal Dutch-Shell combine, is on vacation at St. Moritz.

• • •

Ralph Steinman, chief scout of Sinclair Prairie Oil Company, has recovered from a severe attack of influenza.

• • •

H. L. Brown and Ridley Wheeler, independent operators, Fort Worth, Tex., have been spending some time in Houston, Tex.

• • •

C. R. Barton, general manager of refining of the Tide Water Oil Company, Tulsa, spent several days in Houston, Tex., on business.

• • •

H. A. Barnes, mechanical engineer, Parkersburg Rig & Reel Company, Tulsa, returned last week from a two-week vacation trip to Philadelphia, Pa.

• • •

W. K. Whiteford, vice president in charge of production for Barnsdall Oil Company, Tulsa, has been visiting the Houston, Tex., office of the company on business.

• • •

Charles Fairbank, who has recently been in the Oklahoma and Ohio fields, visited Petrolia, Ontario, en route for Columbus, Ohio, where he will be located for some time.

• • •

T. W. Madgett now is district representative of the Continental Oil Company in the Gulf Coast. Continental has just opened offices in Houston, Tex., in the Gulf Building.

• • •

George S. Buchanan, chief geologist for the Barnsdall Oil Company, has closed his residence in Tulsa for the winter, and has taken his family to Houston, Tex., his present headquarters.

• • •

R. Pitkethly of the Sunbury research staff of Anglo-Persian Oil Company, and former manager of the refinery at Abadan, Persia, has been elected a Fellow of the Institute of Chemistry.

• • •

James M. Jackson, traveling representative of the Oriental Oil Company, Dallas, Tex., has been appointed on the staff of Governor Ruby Laffoon of Kentucky with the rank of colonel.

• • •

The Feltex Oil Company has just been organized at Houston, Tex., with D. D. Feldman as president; J. Feldman, vice president; A. N. Adelson, secretary-treasurer; and R. W. Richmond, general superintendent.

• • •

T. R. Dahl, vice president of the White Motor Company, has been elected a director of the National Automobile Chamber of Commerce. Mr. Dahl is also a member of the chamber's motor truck committee and has taken an active interest in affairs relating to the commercial vehicle division of the industry.

• • •

Oscar Wolf, chief engineer of the Texas Pipe Line Company, Houston, Tex., has been transferred to the engineering department of the refining division of The Texas Company in the capacity of head of the work on refinery power problems. He will make his headquarters in New York City, where he has already gone. Mr. Wolf has been with the pipe line company for the past five years, the latter two as chief engineer, and the first three years as assistant chief engineer. Previous to coming to the Texas Pipe Line Company he was connected with the Standard group in Kentucky in pipe line engineering work.

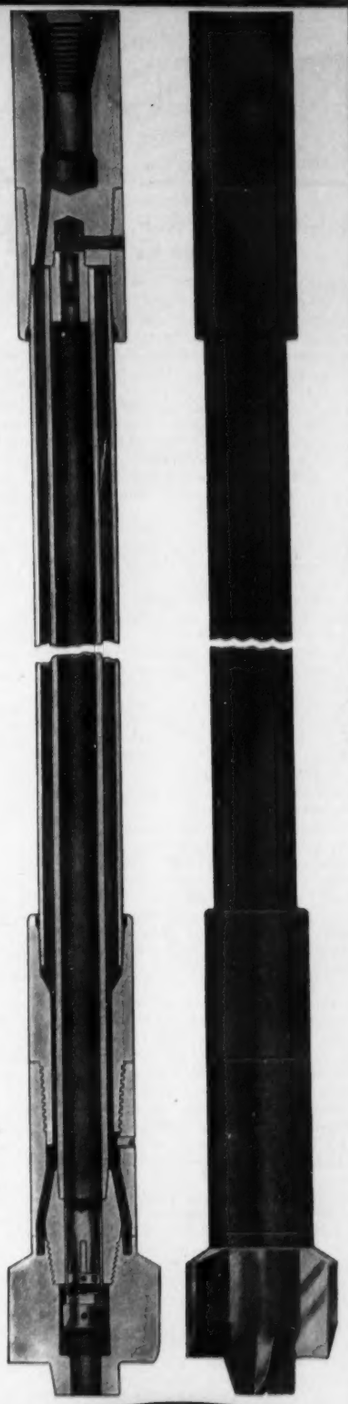
This Year . . . . . don't Gamble on a full Recovery

Why depend on the law of averages to give you a full recovery of the core when you can be sure by using the new Brewster Automatic Core Barrel.

The Core you take with the new Brewster Automatic Core Barrel can be read like a book. The cores are clean, unbroken and free from foreign substances because the inner barrel has been washed clean. This is done by water passing through, but when the coring begins the ports automatically close, and the water is directed around the inner barrel and to the Bit. The position of the valve in the top of the barrel prevents pressure from holding the ball down which permits soft sand core to enter the barrel without resistance.

This barrel, as are Type "C" and Type "M" Barrels, is equipped with the Brewster Split Liner, which permits the core being removed without breaking.

By use of the Type "M" Bit Body ROLLER CUTTER HEADS can be used with Brewster Core Barrels.



AUTOMATIC CORE BARREL
Pat. No. 1,505,346

TYPE "M" CUTTER HEAD

THE BREWSTER COMPANY, INCORPORATED
SHREVEPORT, LOUISIANA

Warehouses: The Iverson Specialty Co., Oklahoma City, Oklahoma, Phone 2-2833; The Brewster Houston Store, 2000 Harrington Street, Capitol 2031; Longview, Texas, 313 E. Cotton Street, Phone 781.

Export Distributors: Acme Well Supply Company, Inc., 136 Liberty St., New York City.

NATURAL GAS DEVELOPMENTS

Abilene to Ask R. F. C. to Finance City Plant

ABILENE, Tex., Jan. 9.—A new factor, that of competing gas, municipally owned, was injected into the hearing being conducted before Ernest O. Thompson, railroad commissioner, involving the Community Natural Gas Co.'s rate schedule in Abilene.

The commission was informed by Lee R. York, mayor of Abilene, that the city commission had voted to make application to the Reconstruction Finance Corp. for a $400,000 self-liquidating loan with which to build a pipe line from the Reagan County gas fields to the Abilene city gate. Mayor York said negotiations already had been opened with Jesse H. Jones, member of the R.F.C. board.

"We have every reason to believe we can deliver gas at the Abilene city gate at less than 10 cents per 1,000 feet," the mayor said. The present gate price, that charged by Lone Star Gas Co., the wholesaler, is a fraction under 40 cents for domestic gas.

The gas field is largely owned by the University of Texas, which would receive royalty from sale of gas. A recent order of the railroad commission, reducing the gas-oil ratio in the Reagan County Field, has reduced wastage and increased the underground storage.

The company is asking for an increased domestic rate on a sliding scale of charges, starting at $1.60 per 1,000 feet of gas, working down to 45 cents.

The Community Natural Gas Co., through E. A. Sternberger, explained how it arrived at a present value of $842,487.86 and a reproduction cost value of $895,015.95 on its Abilene distribution system. It is upon these valuation figures that the company fixes its claim of a $28,497.43, or 3.38 per cent, loss there for the 12 months ending October 31, 1932, and its plea for an increased domestic rate on a sliding scale of charges, starting at $1.60 per thousand feet, working down to 45 cents.

The city of Abilene, resisting a proposed change in rates at a hearing before Ernest O. Thompson, railroad commission member, will attack the valuation setup. The city will attack the nonphysical division of the values in the Sternberger tables, totaling $104,482.83. Henry L. DeBusk, corporation counsel of the city of Abilene, will assail particularly an item of $88,358 listed as "going concern value."

U.G.I. EXPANSION PROGRAM

NEW YORK, Jan. 9.—Utility subsidiaries of the United Gas Improvement Co. have planned expenditures involving more than $13,500,000 for plant additions and improvements during 1933, according to announcement by John E. Zimmerman, president of the company. Much of the expenditure, Mr. Zimmerman said, will go toward the extension of gas and electric services in territories supplied by the various subsidiaries of the parent company's system.

CHICAGO GAS RATES

CHICAGO, Jan. 9.—Peoples Gas, Light & Coke Co. has been granted an extension to January 16 from December 31, for selling natural gas to large volume users on an interruptible supply basis without additional charge for rental of the pipe line which extends from Fritch Station, Texas, to Chicago. The gas company is said to be paying 9.7 cents per 1,000 feet of gas, and markets the gas at 17.5 cents during peak and off-peak periods. If a further extension is not granted after January 16, sales to users of the above classification (interruptible supply basis) will not stop in off-peak periods and the volume of gas sold will be governed by the daily demand maximum which is not to be exceeded.

New Drilling Campaign for Gas Planned Following Michigan Pipe Line Permit

DETROIT, Mich., Jan. 7.—Following the action of the State Utilities Commission granting a permit to the Michigan Natural Gas Corp. to construct a pipe line from the field to Bay City and Saginaw, Central Michigan's gas resources take on new importance which is expected to stimulate drilling for gas. Since the discovery in 1928, 350 oil wells have been drilled, but only 27 gas wells have been completed.

Three gas pools have been developed one in Clare County and two in Isabella County. The 27 wells have a daily output of approximately 100,000,000 feet.

The only commercial use that has been made of the gas has been by the Gas Corp. of Michigan, which supplies Clare, Rosebush and Mount Pleasant; and by the Consumers' Power Co., which supplies Midland. Bay City and Saginaw will use about 3,000,000 feet per day for domestic purposes and an additional 10,000,000 feet for industrial purposes. Negotiations are under way to pipe gas to Ithaca, Alma, St. Louis, St. Johns, Breckenridge, Merrill, Wheeler, Hemlock and Shepherd.

Further development of gas line systems may lead to the utilization of casinghead gas from the Isabella-Midland oil wells. Estimates place the volume of casinghead gas in this district between 8,000,000 and 15,000,000 feet daily, sufficient to serve the needs of both Bay City and Saginaw. At present about 3,000,000 feet is being used daily by a gasoline extracting plant and by the operating oil wells in the field.

Following the granting of permission to lay the pipe line the Michigan Natural Gas Corp. is reported planning a $200,000 drilling campaign in conjunction with the Pure Oil Co. to test wildcat areas and to determine the reserves of the field. Construction on the pipe line will be started in the spring. In its original petition, which asked for permission to serve not only Bay City and Saginaw with natural gas, but also Flint and Pontiac, the corporation stated it planned to construct a 14-inch pipe line and install equipment at a cost of more than $3,000,000.

Meanwhile John W. Smith, Detroit city councilman, who opposed the granting of permission by the utilities commission to the Michigan Natural Gas Corp., has introduced a resolution in the Detroit council to ask the state legislature to investigate the action of the utilities commission in granting "an exclusive permit" to develop and pipe gas from the oil fields of central Michigan. Mr. Smith charges that the commission has permitted itself to "become a party to the ulterior purpose of the big utilities interests to keep natural gas out of Detroit."

Members of the city councils of Shepherd, Alma, St. Louis, Wheeler and Breckenridge have asked the Michigan Public Utilities Commission to postpone the hearing on the application of the Michigan Natural Gas Corp. to construct a pipe line from the Isabella Field to these communities. This would be a spur line from the main line to Bay City and Saginaw. It is understood that the natural gas corporation has made a tentative agreement with the Michigan Federated Utilities, which now serves these towns with artificial gas, to furnish this concern with natural gas to be distributed in its system.

Officials of these Gratiot County towns contend that before the Michigan Federated Utilities had revealed any plans for such a change they had been negotiating with the Miller-McCloskey interests for natural gas service at rates lower than the artificial gas rates. The city councils at Shepherd, Alma and St. Louis already have approved 30-year franchises with the Miller-McCloskey interests for this service, pending ratification by the voters. They claim that the spur line request of Michigan Natural Gas is a move to head off the prior proposal of Miller and his associates, and that, if granted, it would constitute "an exclusive permit" to the applicant.

ROYCE CITY RATES

AUSTIN, Tex., Jan. 9.—The Texas Railroad Commission has sustained the present natural gas rate of 75 cents per 1,000 feet, domestic, of the city of Royce City, Tex. The rate is subject to a 10 per cent discount for prompt payment of bills, and to a 50-cent monthly ready to serve charge. The Community Natural Gas Co. sought to increase the rate to $1.66 for the first 1,000 feet, $1.35 for the second thousand and 88 cents above. The increase was denied by the city council, and appeal of the gas company was rejected by the Railroad Commission.

LONDON PIPE LINE UNLIKELY

CHATHAM, Ontario, Jan. 7.—Published reports that Union Gas Co. of Chatham is planning to build a pipe line to London failed to secure any official confirmation. The company some years ago acquired control of the City Gas Co. which distributes artificial gas in London. Its nearest producing area is the Dawn Field in Lambton County, about 60 miles from London, and the project would involve probably a 10-inch line which, with laterals, meters and right of way, would represent an outlay of approximately $650,000. While such a project may eventually be undertaken, there seems no likelihood that it will be realized in the near future.

There are no extensive gas fields along the route of the proposed line, though the Southern Ontario Gas Co. a couple of years ago got a fair production in one well east of Newbury, and small gas showings were struck about 20 years ago in the well at Delaware, some miles west of London.

TRI-STATE ELECTS OFFICERS

At the annual meeting of the Tri-State Gas & Electric Co. held in Elmira, N. Y., the following officers and directors were elected for the year: Gale Stalker, president; F. C. Campbell, vice president; Clifford F. Calkins, secretary and treasurer. Mordecai Casson is attorney for the company.

Directors: Gale H. Stalker, Elmira; Fred C. Campbell, Odessa; Guy W. Cheney, Corning; Arthur J. Berns, Painted Post; Arthur L. Kiff, Hammondsport; Gilbert W. Peck, Ithaca; John F. Dale, Clifford F. Calkins, Elmira; Harold Sawyer, Syracuse.

Cities Service Gas Co. Wins Kansas Rate Suit

TOPEKA, Kans., Jan. 9.—Henry L. Doherty and the Cities Service Gas Co. won their long fight to prevent the state of Kansas reducing the company's city gate rate from 40 to 30 cents per 1,000 feet.

A three-judge Federal court by a two to one ruling decided the lower rate did not allow an adequate return on the company's investment and that the 40-cent rate is reasonable. Judge George T. McDermott, Topeka, and Judge O. L. Phillips, Denver, concurred. Judge Richard Hopkins, Wichita, will file a dissenting opinion.

The ruling affirmed the state's right to regulate pipe line rates but ruled in the Cities Service case the valuation of physical properties had been placed too low. The court expressed the belief that a fair valuation of the properties would be $83,000,000, some $10,000,000 more than allowed by the state commission and about $23,000,000 less than claimed by the Doherty attorneys.

An 8 per cent income was declared essential for public confidence in the organization and the 30-cent rate would allow a return of only 4½ per cent, the court said.

"We conclude, therefore, that 40 cents per 100 feet for gas at the city gates is a reasonable charge," ruled the two judges. "That to compel the Cities Service Co. to furnish such gas at 30 cents per 1,000 feet will result in the confiscation of its property."

The Federal judges declared invalid the order of the State Public Service Commission requiring that the rates be reduced, and made permanent an earlier injunction against the order.

Oklahoma City Franchise Application Protested

Formal protest against the franchise application of the Oklahoma City Gas Co. was filed with Mayor Blinn by M. L. Head, a bond broker, Victor Mead, a realtor, and C. L. Hurley, an investment broker. Objections to calling a franchise election will be heard by the mayor. Check of the signatures on the petitions has been started by S. E. Reeves, mayor's secretary.

The protest set out five objections to the calling of an election:

1. That the company has not sufficiently demonstrated its financial ability to handle a franchise.

2. Opposition to granting any company a 25-year franchise when its purposes were not fully known.

3. The petitioners said they could not conceive of a company's being organized in times of financial stress which could give gas service as good as the community has enjoyed in the past.

4. While favoring cheap gas rates the petitioners deem it unwise to rush into any franchise election.

5. The petitioners call attention to recent attempts to establish new franchises in other cities, mainly unsuccessful.

APPALACHIAN GAS REORGANIZED

The committee headed by John C. Adams has announced that the plan of reorganization of the Appalachian Gas Corp. had been declared operative. Of the $13,400,000 of secured and unsecured obligations of the company, about $11,000,000 has been deposited under or committed to the plan. Debenture holders may deposit their securities with the New York Trust Co., depository, until January 18.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Good Books for the Roustabout Who Wants to Go Higher Up

I am just a greenhorn in this oil business, having been transferred from the office to trying to roustabout here in the Seminole Field. I am trying to learn as I go along, but if I could read about some of this stuff, see some diagrams, etc., I would know a little bit more about it. My farm boss recommends that I turn to you for suggestions. Fundamental, or primary, oil field literature is what I am after, though I am not looking for anything so easy and simple that I won't have to work for what I get. A few things I have in mind are the mechanics of working barrels, tubing (depths, etc.), gas engines, settling tanks and tank batteries generally, lease work, etc. I am willing to study, but want your help in the selection of what to study. Please don't make it too expensive. I can invest a little in books as I go along, but I don't have any too much money. You're the doctor. I await your prescription.—R. D.

That's a good letter, and it is a pleasure to offer such suggestions as are likely to be of help, especially as it is probable your situation is similar to that of many others who watch this page. What you say about having a limited amount of money to spend is noted, and it prompts the comment that here again a common cord is touched. The recommendations offered are based on the supposition that you can appropriate $2.50 monthly for oil-field books for a period of six months.

First, it is suggested that you subscribe for The Oil and Gas Journal, for in that way you will be sure of receiving fresh news and discussions of oil-field production problems throughout the year.

The U. S. Bureau of Mines has published numerous handbooks and it is suggested that you write to the Government Printing Office, Washington, D. C., for its "List of Publications, Bureau of Mines." This will give you the names of all the bulletins and reports of investigations prepared to date and their costs. Among the bulletins you are likely to want are the following, which you can obtain by remitting the amounts indicated:

B-200. "Evaporation Losses of Petroleum in the Mid-Continent Field," by J. H. Wiggins. Discusses the problem and the methods of attack, volumetric losses during handling and storage, and presents scientific data on the evaporation of petroleum. Price 20 cents.

B-201. "Prospecting and Testing for Oil and Gas," by R. E. Collom. Discusses briefly some of the features of oil and gas accumulation, describes certain oil-field rocks and minerals and kinds of tools that should be used, and discusses the accurate testing of strata for oil or gas. Price 25 cents.

B-224. "Surface Machinery and Methods for Oil-Well Pumping," by H. C. George. Presents information by photographs and drawings which are described in the text. Gives cost of development and equipment of a typical oil-well property and discusses operating costs of oil wells. Price 50 cents.

B-228. "Estimation of Underground Oil Reserves by Oil Well Production Curves," by W. W. Cutler, Jr. Discusses production-decline curve method for estimating recoverable underground reserves of oil and its use for solving operating problems. Price 20 cents.

B-232. "Manual for Oil and Gas Operations," including operating regulations to govern the production of oil and gas under the Act of February 25, 1920, June 4, 1920, March 4, 1923, and under special agreement by the United States, by T. E. Swigart and C. E. Beecher. Points out types of oil and gas wastes and suggests methods in current practice for stopping these wastes. Outlines policies of the Interior Department on field operations. Price 40 cents.

B-250. "Oil Field Emulsions," by D. B. Dow. Deals with the cause and removal of water emulsified in crude petroleum and the colloidal theories involved. Price 25 cents.

B-284. "Production and Development Problems in the Powell Oil Field, Navarro County, Texas," by H. B. Hill and C. E. Sutton. Presents the results of a detailed study that was made primarily to obtain a better working knowledge of the major features, involving structural conditions, the character and nature of the Woodbine pay sand, and the source of water. A complete and reliable compilation of data. Price 45 cents.

B-322. "Effect of Vacuum on Oil Wells," by B. E. Lindsly and W. B. Berwald. Presents results of investigations to determine the nature, power, and action of vacuum; urges the importance of the correct application of vacuum to obtain increased recovery of oil. Price 35 cents.

B-323. "Gas-Lift Method of Flowing Oil Wells," (California Practice), by H. C. Miller. Presents data of actual gas-lift operation. Points out operating facts and generalized practices. Price 30 cents.

B-348. "Paraffin and Congealing Oil Problems," by C. E. Reistle, Jr. 1932. Price 55 cents.

By writing to the Petroleum Experiment Station, Bartlesville, Okla., you can get a selected list of publications and an engineering report upon the Seminole area. This latter should be of particular value to you.

The Oil and Gas Journal and bulletins listed above will cost you $9 and for the remaining $6 it is suggested that you get from W. H. Jeffery, 2030 Second National Bank Building, Toledo, Ohio, a copy of "Deep Well Drilling."

In looking over the list of bulletins you may wonder why books published 8 to 10 years ago are recommended. You will find that these bulletins are well prepared and the fundamental facts are still as true as when written. They will form an excellent background for your study and by combining with them current papers and articles published in The Oil and Gas Journal you will be able to follow recent developments much more clearly than you could without this background.

In making these recommendations it is assumed that you have a general knowledge of engineering, chemistry and physics. If you do not and desire elementary and advanced books on those subjects you will find them available. Most of the leading book publishers can furnish you with complete lists of books covering these subjects.

Your idea of home study is most commendable and if it is combined with your every-day work on the lease it should soon give you a thorough knowledge of oil-field problems. As you observe new problems from day to day it would be well for you to make note of them and see what it said about them in the books recommended. If there are special problems not covered by these books, or if you do not have them available this department will be glad at any time to assist you.

Why Was It Called That?

CRANE

The crane, a hoist which also can move the load in a horizontal or lateral direction, was in the early part of the eighteenth century a primitive contrivance operated by means of a large hollow wheel. Inside this wheel a man walked forward or backward, according as objects were to be raised or lowered. The jib, or arm, was fixed on a pivot, so as to turn about three-fourths of a circle. This machine was used at docks in loading and unloading vessels. It came to be called a crane because the movements of the arm suggested those of the long neck of the familiar wading bird.

Decreasing Paraffin Troubles by Using Water Bottom in Tank

Has the idea of having a layer of water at the bottom of oil tanks to reduce the trouble from paraffin been tried out in actual practice to any considerable extent? If it has, can you tell me whether it has proved worth while? I would be glad to have any facts you can give me about this plan.—A. G. F.

The idea of keeping a layer in the bottom of oil tanks with a view of minimizing paraffin troubles has been tried out with success in the East Texas Field. This water in the tank provides a flexible bottom and prevents the formation of a hard paraffin accumulation. W. T. Doherty and R. C. Buchan, petroleum engineers for the Humble Oil & Refining Co., discussed this practice before a production division meeting of the American Petroleum Institute. They pointed out that this method is cheap and said it had been used successfully.

The tendency for an emulsion to form is prevalent where fresh water is used, due to agitation of inflowing oil, but by adding 1 per cent salt or oil treating chemicals to the water, this is prevented. With this method there is a gradual deposit above the water of soft and mealy paraffin which shows a tendency to hold water in suspension on cold days.

It was found that tanks with a water bottom that had been in service for five months contained an average of 2 inches of this soft mealy paraffin above the water layer. Some of the water was lost after having been held in suspension and going out with the oil, but this loss is very slight and amounted to only five-hundredths of 1 per cent of the oil handled through the tank.

The water used in these tanks was 1 per cent salt (sodium chloride) solution. By increasing the amount of salt the tendency to be held in suspension is less. During warmer weather this tendency decreases and the intermediate layer becomes less, due to the fact that summer heat causes a settling of the water.

If water is put into a tank the major consideration is the marketability of the oil in the tank. Since pipe line companies require 4 inches of clearance below their connection in the tank, the amount of water and the paraffin layer must give this clearance.

Best Plan May Be to Have Motor Rewound by the Manufacturer

I have been trying without much success to hit upon some kind of varnish to use on the insulation of old motors. Some of our motors have seen long service and the insulation has a way of becoming encrusted with oil and dirt and then breaking down. Can you offer any method of treating these old motors that will reduce this trouble?—H. T. G.

Not much encouragement can be offered in this case. The motor should be rewound and unless you have a bake oven it is unlikely that you would be able to make the varnish penetrate to the inside of the windings. The varnishes you have tried are probably all right, but the method of application is likely to have been faulty. If you do not have access to a bake oven you are likely to get the most satisfactory results by sending the motor back to the manufacturer for rewinding.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Disposal of Acid Waste From Light Oil Treating

We intend to acid treat in a continuous system, using the sludge intermittently until it reduces in strength to where it will not be economical to use. The plant is so situated that it will be impossible to store it in open pits and we must also be very careful that any drainage from such a pit will not pollute an adjacent stream. Could you give me one or more suggestions how to properly handle the disposal of this acid sludge?—E. G.

The most satisfactory method for the disposal of the acid sludge from the treating of kerosene and pressure distillate is to burn it from a properly prepared and safely located sump. There have been many instances where no thought has been given to the preparation of the acid ponds so that there will be no seepage of acid into water wells or into adjacent streams. This oversight has frequently resulted in serious pollution of waters which were used for domestic and industrial purposes and for irrigation. The sump should be located where the soil is chiefly clay but this is not always possible. The site should be selected at the lowest spot available, the reservoir made of the desired size and the bottom and sides well tamped and finally covered with hydrated lime. The purpose of the lime is to form a layer of calcium sulphate, through the action of sulphuric acid, which will help prevent any acid from escaping into the soil. Proper dykes should be built about the sump to prevent surface drainage entering and washing away any acid that may be present at the time of a heavy rainfall.

The refiner may hesitate to make the expenditure for the lime that is to be used simply to neutralize acid to form an acid seal but many refiners go even further and attempt to neutralize all of the acid that may be present in the sludge. This has been found to prevent expensive litigation that is always certain to follow any serious contamination of a stream or damage to property. There is always some waste alkali available which will go a long way for neutralization purposes and even if lime has to be purchased for overcoming excess acidity it may save more than the sum required to conduct law suits and pay damage claims.

When the sludge is collected in a sump of this type the matter of burning it off should be routine so far as weather conditions will permit; that is, the burning should not be delayed until relatively large quantities have accumulated. Frequent burnings will avoid long standing of any acid, with the danger of escape, and will help to build up a firm cement to close the bottom and sides.

When it is not possible to handle the sludge in a sump it will have to be fully neutralized before being released into a sewage system, or it may be partially neutralized, blended with gas oil or light fuel oil, and then consumed as fuel. Some of the larger refiners dispose of all acid sludge, including that from the treating of lubricating oils, as fuel. In order to do this special apparatus is required and the furnace conditions such that high temperatures will be maintained to prevent corrosion.

E. W. Zublin, in The Oil and Gas Journal, August 18, 1931, page 22, suggests that clay wastes may be used in the treatment of spent acid from refineries. He states:

In refineries where oils are treated with contact clays, spent acid from treating oils can be used to a great advantage for treating the clays. Contact clays that require acid treatment for activation contain considerable percentages of acid soluble metal oxides, mostly magnesium, aluminum and iron. The acid used in the treatment is largely converted into a solution of metal sulphates. After completion of the treatment it is drawn off and dumped, preferably into a sump. As most refineries employ caustic in some form or other at some part of the plant, the acid liquid may be partly neutralized in the sump. An excess of caustic over acid will cause part of the aluminum and iron oxides to be precipitated and the precipitate will settle. Lead from doctor solutions will form insoluble lead sulphate which also settles. In consequence the sump will gradually fill up and must be cleaned out at intervals. The size of the pond, relative quantities of acid solution, caustic and doctor solution, determine the frequency of these cleanouts. The settlings contain varied proportions of aluminum, iron, magnesium, lead and some mineral matter, chiefly fine clay particles; they have not found any use as yet. If the lead content is sufficiently high it may pay to recover it. The aluminum can be dissolved in caustic to form sodium aluminate and used for boiler water treatment.

Cotton Cloth Used With Asphalt and Oil in Road Construction

I have noticed a brief mention of a cotton and asphalt road which is in operation in South Carolina. Do you have any information relating to this kind of road construction?—G. R. J.

It is reported that a so-called cotton road laid in South Carolina six years ago is now in excellent condition after being exposed to the usual traffic conditions, and has required no repairs. This road consists of a layer of cotton cloth covered with asphalt and then a top dressing of gravel; the road is finished with a coat of oil. This road is said to be waterproof and durable.

The use of cotton cloth makes it possible to reduce construction time, and since this type of road may be completed at low cost, the method is especially suitable for improving dirt roads. Recently a stretch of road near Baton Rouge, Louisiana, has been resurfaced with cotton cloth. Other experimental units of this character have been built and are under observation in Georgia and Texas.

Process for Butane and Propane Extraction Outlined

We have a casinghead plant and would appreciate any data regarding the necessary equipment required for the extraction of butane and propane from our gas.—P. J. M.

The process for extracting the constituents of a natural gasoline is based on fractionation at low temperatures, just the opposite to the practice followed in petroleum refining where the several products are fractionated at elevated temperatures. The refiner obtains the group of hydrocarbons called gasoline by heating the crude oil to a moderate temperature and condensing the vapors. At slightly higher temperatures the product naphtha will be obtained, then at somewhat higher temperature the kerosene will be separated. Operating in a similar manner the additional products, gas oil and lubricating oil, may be obtained.

Since natural gas does not contain so many different compounds as petroleum and the compounds of natural gas have boiling points far enough apart to facilitate separation, it is not difficult to extract the different compounds in a practically pure condition by the process of fractionation. Natural gasoline may be extracted from natural gas by a process which is a combination of compression, absorption and distillation. Some of the nautral gasoline will drop out from the gas when it is compressed and cooled, and most of that remaining by washing the gas with a suitable absorbing oil, the enriched oil being heated to drive off the gasoline that has been absorbed. The pressure used for compressing, the quality of the oil, rate of circulation, pressure carried on the absorbers and temperatures govern the quantity and quality of the product.

The process for making natural gasoline was formerly conducted in such a manner that appreciable quantities of propane and butane were obtained with the gasoline. These are now removed by the method known as stabilization, which is simply a continuation in another unit of pressure, absorption, distillation and cooling utilized for the earlier separation of the natural gasoline. Adequate towers are arranged so that the heavier substances are drawn off at the bottom while the lighter ones escape at the top.

Propane boils under normal pressure at —44° F.; at 80° under 128 pounds pressure and at 120° under 225 pounds pressure. The boiling point of butane at normal pressure is 31° F.; at 23 pounds it is 80°, and at 56 pounds, 120° F. As mentioned above these differences aid in the separation.

The additional equipment to the ordinary natural gasoline plant that will be necessary for making propane and butane is one or two bubble plate towers with heating coils (reboiler), heat exchangers, condensing system and pumps. The number and size of each will depend on the volume to be handled.

Blending of Bright Stocks and 200 Viscosity Neutrals

What is the method used for determining when a 200 neutral oil is used in blending with a bright stock for motor oil instead of a 150 neutral? Also the advantage of using the 200 neutral?—A. E. M.

Bright stocks vary in viscosity from 150 to 200 seconds at 210° F. The 200 neutrals have a viscosity of 200 at 100° and about 40 at 210°, and the 150 oil a somewhat lower viscosity. The blending of bright stocks and neutrals is the common method for making motor oil and other lubricating oils of the several viscosities that are marketed. Of course the higher viscosity bright stocks will permit larger quantities of the lower price 200 and 150 viscosity oils to be used to produce an oil of some intermediate viscosity and therefore reduce the cost of the blend. The same is true concerning the 200 and 150 oils; the higher viscosity can be used in the larger quantity.

Sometimes a specified viscosity ratio or viscosity index is desired. Under such circumstances the quantity of the lower viscosity oils to be added to the bright stock will be limited and possibly the source of either or both oils would be involved.

As has been so frequently said, no one property of a lubricating oil is reliable for grading an oil as to oiliness or predicting what may be expected in a particular service. Viscosity is used for marketing, the highest viscosity oils bringing the highest prices and the lowest viscosity oils selling for the lowest prices. When general high quality is desired it is usually suggested that the specifications should include pourpoint and carbon residue in addition to viscosity. Absolute purity, that is freedom from foreign matter, water, acid, alkali and excessive sulphur, is an essential requirement for any good lubricating oil.

The identification of the several oils that have been used in a blend, without having analyses of the base oils at hand to serve as a guide, is difficult. In addition to viscosity ratio and viscosity index reliable suggestions may be obtained from the gravity and flash of the oil, since the gravity and flash of the blend will be influenced according to these properties of the neutral oil. The lower the viscosity of the neutral the higher the gravity and lower the flashpoint. Some experience and a knowledge of the properties of numerous lubricating oils is necessary to enable one to form a reliable conclusion regarding the composition of a commercial lubricating oil. If enough oil is available a distillation, made under vacuum, should yield a series of distillates that will indicate what oils were originally used.

NEW AND IMPROVED EQUIPMENT

Ingersoll-Rand Offering Air-Operated Sump Pump

A new portable, air-operated sump pump intended for use by refineries, general contractors, public utility companies and other fields of service has been developed by Ingersoll-Rand Co., 11 Broadway, New York. It consists of an open-impeller type centrifugal pump driven by a "multi-vane" type air motor and both

Size 25 portable sump pump

enclosed in a one-piece housing. The unit weighs 50 pounds, and is designated as sump pump size 25.

Typical uses are pumping from sumps, tanks, trenches, manholes, caissons, cofferdams, etc. The pump will handle clear or dirty water, oil sewage, or moderately heavy sludge. Materials used are suited to the services and include bronze, stainless steel and rust-proof steel for installations that require them.

The pump is intended for lifts of 10 to 40 feet with air pressure of 70 to 90 pounds, but will give satisfactory results under widely varying conditions of head and air pressure. Using air at 80 pounds pressure, the capacity ranges from 170 g.p.m. with 10-foot lift through 20 feet of 2½-inch hose to 125 g.p.m. with 40-foot lift through 50 feet of 2½-inch hose. The pump is self-priming as it has no suction lift, and must be submerged to cover the inlet screen.

Cummins Announces Power Units for Oil Field Service

The Cummins Engine Co., Columbus, Ind., manufacturer of Diesel engines, announces development of two power units especially designed for oil field service in driving pumps, generators, etc. These units, one built up with the company's four-cylinder engine and the other with its six-cylinder, will be complete with radiator, clutch power takeoff, etc.

The performance of trucks powered with Cummins Diesel engines has been arousing the interest of oil field and pipe line men. A typical record cited by the Cummins company is that of a six-cylinder truck which hauled an average load of 68,400 pounds a total of 34,334 miles in five and one-sixth months with a total cost of $307.38 for fuel oil and $73.50 for lubricating oil. The truck traveled 6,641 miles per month over mountain roads at an average cost of .00088 cents per mile for fuel oil and a total cost of .011 for both fuel oil and lubricating oil.

Notes About Trade Literature

A 32-page bulletin, No. 175, obtainable from the Foxboro Co., Foxboro, Mass., presents a readily understandable explanation of the Stabilog system of automatic temperature, pressure, liquid level and flow control. Mechanical construction and details are described briefly. The bulletin simplifies the whole subject of automatic instrument control.

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The Cleveland Trencher Co., Cleveland, Ohio, is distributing a bulletin describing and picturing the Cleveland trench guards for use around excavations or alongside ditches.

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The Caterpillar Tractor Co., Peoria, Ill., has prepared a 48-page book on earth moving in construction of roads, canals and embankments with "Caterpillar" equipment. The book is designed especially to meet the demands of the export field where such jobs are few, the labor frequently unskilled and the population sparse.

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Bulletin 1,500, which may be had from the American Instrument Co., 774 Girard Street, N. W., Washington, D. C., describes Lolag immersion heaters, both plain form and made up in easily applied units for tanks, stills, etc., for all applications where liquids are to be heated electrically.

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A booklet of 15 pages illustrated, published by the Linde Air Products Co., 30 East Forty-second Street, New York, describes the Oxweld portable tensile testing machine developed by Union Carbide & Carbon Research Laboratories, Inc.

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Rubber pulley lagging increases the coefficient of friction between a rubber belt and a dry pulley face about 20 per cent and is particularly applicable to drive pulleys on belt conveyors and bucket elevators to improve pulley grip and prevent slipping, according to a two-page insert for its mechanical goods catalog just issued by the B. F. Goodrich Rubber Co., Akron, Ohio.

—

The Fisher Governor Co., Marshalltown, Iowa, has available a bulletin devoted to its new drawn-steel float cage.

Safe Is Designed to Foil Filling Station Hijacker

Frequent robberies of gasoline stations, garages, etc., have resulted in the production of the Guncor Pot-o-gold, described by the manufacturer, the Gunite Foundries Corp., Rockford, Ill., as a specially designed safe providing 650 cubic inches of space for the storage of money and valuables. It is made from Electrided Z-metal which is said to resist corrosion, drilling, hammering or attempts at crushing. The metal used was developed after 80 years of research and tests. Properly anchored in concrete the Pot-o-gold is said to provide absolute protection.

This safe can be installed in any cement floor or wall, or if desired, can be set in a concrete block located in the corner of a closet or storeroom. This installation can be made by any workman who is competent to handle the mixing and pouring of concrete.

When used in chains of service stations, etc., where employes take in cash and need to be provided with a safe place to deposit it, Pot-o-gold safes can be installed economically and with a combination known only to the supervisor or official authorized to make collections of the funds. A notice is provided to be posted on the wall or window immediately above the safe. This notifies robbers that employes and attendants do not know the combination of the safe, relieving the latter of danger and abuse at the hands of thugs.

LIFE OF HOSE IS PROLONGED

By lining oil tank truck and oil tank car hose with a pure tube of Paranite G.O.P. (gas-oil-proof) compound, the life of such hose is greatly prolonged, says the Manhattan Rubber Manufacturing Division, Passaic, N. J. The Paranite G.O.P. compound is a specially developed substance produced from Thiokol and is similar to rubber in appearance and physical characteristics, but unaffected by petroleum. The different grades of hose are lined with Paranite G.O.P. in pure form or combined with oil-resisting rubber in the right proportion, depending on the severity of the service.

Round-Chart Indicating Recorder Is Introduced

The new round-chart Micromax indicating recorder, announced by Leeds & Northrup, 4901 Stenton Avenue, Philadelphia, Pa., possesses valuable features, according to the manufacturers. First, the temperature detector (thermocouple or resistance thermometer) has extremely long life; second, it may be replaced when necessary without sending the recorder back to the factory, and, third, it may be installed at any distance from the indicating recorder or shifted from place to place at will. This instrument is also especially adapted to the recording of temperatures across the entire ranges of thermocouples, of resistance thermometers, to the recording of smoke density, liquid levels, SO_2, speed, solar radiation and many other applications.

The instrument has a boldly lettered circular scale that is read easily. It uses a 24-hour circular chart. The chart has straight-line time co-ordinates instead of curved ones, thus further increasing the readibility. The calibrated portion of the chart is 3½ inches wide, and the chart is 10⅜ inches in diameter overall. The recorder is made as a single-point instrument only, and can be equipped with two signal or control contacts. Potentiometers are manually standardized. The mechanism may be swung out of the case if desired. The case is 16½ inches in diameter, and may be mounted either flush or hanging on the face of a wall or panel as specified.

CRAWLER WAGON IS ANNOUNCED

The Trackson Co., Milwaukee, Wis., announces a 10-13 yard crawler wagon designed to meet the demands for larger capacity wagons for use with modern high-powered, high-speed tractors. This latest Trackson product is a bottom dump crawler wagon with a full 10 cubic yards struck measure capacity and 13 cubic yards heaped measure capacity. According to the manufacturer, it offers strength, long life, durability, easy running and economy. It is equipped with Trackson 20-ton crawler wheels.

Men Well Known in the Equipment Field

Livingston W. Houston, connected with the Ludlow Valve Manufacturing Co., Troy, N. Y., for 13 years, has been elected president of the company, succeeding William H. Lolley, who resigned.

LIVINGSTON W. HOUSTON

Mr. Houston is a graduate mechanical engineer of many years' experience. Prior to association with Ludlow he held engineering executive positions, and he served as a captain in the Ordnance Department of the U. S. Army.

Mr. Houston is a trustee of the Troy Savings Bank, secretary of the board of trustees of the Rennsselaer Polytechnic Institute, vice president of the Samaritan Hospital and president of the Troy Country Club. According to Mr. Houston, no changes are contemplated in either personnel or policies and program of the company.

Cooper-Bessemer Rounding Out Century of Expansion

A century of engine building is being rounded out this year by the Cooper-Bessemer Corp., Mount Vernon, Ohio. The company was founded in 1833 by Charles and Elias Cooper, brothers. Judged by present-day standards the original foundry was a crude one. The cupola fan was driven by a horsepower rig, and much of the hand work of charging, tapping and pouring was done by the Cooper brothers themselves. From this modest beginning the company has made steady progress.

The company at first built only the simplest type of steam engines, but with the passing years it widened the scope of its products. It has kept step with the engineering phases of the petroleum industry and its oil field engines and compressors are familiar wherever oil is produced or transported by pipe line.

MOVES TO LARGER QUARTERS

The Tulsa Camera Record Co., which specializes in photostating, blueprinting and the reproducing of maps of any size by the Kodalith process, has just moved into larger quarters in the Kennedy Building, Tulsa.

Oklahoma-Kansas and Eastern Monthly Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for October

Runs

Company—	Month (bbls.)	Dy.av. (b. ls.)
Gulf Pipe Line Co.	1,416,593	45,697
Texas P. L. Co.	592,317	19,107
Empire P. L. Co.	1,706,629	54,859
Magnolia P. L. Co.	969,995	31,290
Cosden P. L. Co.	601,669	19,409
Stanolind P. L. Co.	2,557,500	82,500
Oklahoma P. L. Co.	1,668,823	53,832
Other lines*	5,283,020	170,420
Total October	14,796,546	477,115
Total September	14,653,324	488,444
Difference	137,222	11,329

Shipments

Gulf P. L. Co.	1,794,020	57,872
Texas P. L. Co.	777,353	25,076
Empire P. L. Co.	1,838,463	59,208
Magnolia P. L. Co.	1,005,631	32,440
Cosden P. L. Co.	603,203	19,458
Stanolind P. L. Co.	3,486,136	112,456
Oklahoma P. L. Co.	1,966,056	63,421
Other lines	5,580,000	180,000
Total October	17,047,861	549,931
Total September	15,926,837	530,897
Difference	1,121,024	19,034

Stocks

Prairie O. & G. Co.*	23,764,066
Gulf P. L. and Gypsy Oil Co.	7,151,044
The Texas Company	2,032,074
Empire P. L. Co.	4,593,902
Mid-Continent Petroleum Corp.	2,288,813
Stanolind Crude Oil Pur. Co.*	15,061,000
Magnolia Petroleum Co.	7,702,442
Oklahoma P. L. Co.	1,451,236
Carter Oil Co.	3,326,404
Other lines	15,450,000
Total October	93,771,915
Total September	94,356,789
Difference	584,874

*Estimated. Stanolind Pipe Line Co. shipments include Texas crude oil.

EASTERN PIPE LINE REPORT FOR MONTH OF OCTOBER
Runs From Wells

In the following table will be found the receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	201,405.14	186,697.73
S. W. Pa. P. L.	58,914.32	56,303.64
Eureka P. L.	257,681.27	227,719.77
Buckeye P. L. (Macksburg)	222,134.39	221,252.82
Buckeye P. L. (Cleveland)	11,013.22	9,299.53
Buckeye P. L. (Lima, etc.)	72,758.52	60,705.25
Indiana P. L.	2,062.25	1,368.26
Stoll Oil Ref.	41,043.22	20,299.73
Bradford Trans.	390,401.42	331,443.13
Ashland Ref.	129,193.40	122,303.64
N. Y. Transit	34,818.86	33,248.55
Tide Water P. L.	22,442.49	23,785.36
Pure Oil	599,919.82	463,657.33
Total	2,044,788.83	1,816,064.74
Daily average	65,960.32	60,602.16

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	542,464.94	502,196.97
S. W. Pa. P. L.	392,793.68	444,753.50
Eureka P. L.	300,410.16	249,230.42
Buckeye P. L. (Macksburg)	263,102.67	246,783.10
Buckeye P. L. (Cleveland)	1,901.45	1,463.62
Buckeye P. L. (Lima, etc.)	1,432,040.72	1,409,439.45
Indiana P. L.	946,219.98	957,560.92
Bradford Trans.	451,634.36	471,869.20
Southern P. L.		39,328.54
Tuscarora	174,917.30	160,075.90
N. Y. Transit	189,793.67	190,178.82
Northern P. L.		126,955.13
Tide Water P. L.	419,839.32	381,447.02
Pure Oil	647,452.89	503,320.53
Total	5,763,627.04	5,688,803.22
Daily average	185,504.09	189,626.77

Gross Stocks

The gross stocks held by various pipe lines of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	718,643.87	653,197.76
S. W. Pa. P. L.	325,982.63	285,254.12
Eureka P. L.	926,366.40	898,267.48
Buckeye P. L. (Macksburg)	286,984.63	288,885.92
Buckeye P. L. (Cleveland)	31,108.08	33,101.01
Buckeye P. L. (Lima, etc.)	2,527,710.50	2,492,210.50
Indiana P. L.	504,958.35	495,619.45
Brad. Trans.	345,866.74	281,278.89
Southern P. L.	272,979.30	231,099.17
Tuscarora	8,730.42	8,823.80
N. Y. Transit	94,416.84	100,309.38
Northern P. L.	225,665.94	220,986.55
Tide Water P. L.	587,026.57	558,704.04
Pure Oil	567,156.96	568,451.98
Total	7,421,620.24	7,116,200.05
Decrease	473,801.48	305,420.19

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of October and November, showing gross stocks of the above fields:

	Oct., 1932	Nov., 1932
Pennsylvania	2,939,526.10	2,752,920.73
Lima	441,182.47	425,365.89
Kentucky	9,786.51	
Mid-Continent	3,516,124.72	3,432,437.70
Illinois	4,647.97	2,999.77
Michigan	510,352.97	502,475.96
Total	7,421,620.24	7,116,200.05

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1929	1930	1931	1932
Jan.	51,749	75,907	53,939	53,501
Feb.	51,832	79,256	55,163	55,498
Mar.	54,252	76,688	54,331	57,199
April	58,444	86,536	54,914	57,348
May	59,902	70,546	53,344	59,105
June	58,833	76,430	54,110	64,371
July	66,087	68,921	50,723	63,402
Aug.	66,087	54,291	51,503	67,676
Sept.	67,315	56,595	61,345	65,423
Oct.	76,033	58,179	65,595	65,960
Nov.	74,931	52,332	59,819	60,602
Dec.	74,561	53,999	61,835	

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1929	1930	1931	1932
Jan.	165,721	217,623	175,369	186,651
Feb.	159,387	224,355	183,494	169,856
Mar.	161,474	228,846	185,508	188,792
April	169,737	241,845	191,450	202,036
May	184,281	248,382	199,247	201,404
June	185,404	234,401	221,155	201,632
July	194,763	207,094	211,632	202,859
Aug.	194,946	205,506	224,166	187,839
Sept.	201,214	193,999	217,537	170,524
Oct.	191,367	157,675	210,831	185,504
Nov.	202,743	146,638	196,425	189,626
Dec.	186,257	143,001	176,241	

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines at the close of each month for the past three years:

	1930	1931	1932
Jan.	12,320,045	11,831,092	9,023,914
Feb.	12,991,561	11,506,489	8,974,356
Mar.	13,247,217	11,012,162	8,802,192
April	13,233,961	11,044,481	8,908,661
May	13,052,953	10,728,239	8,835,724
June	13,396,855	9,902,349	8,732,724
July	13,268,562	9,569,849	8,176,954
Aug.	13,047,051	9,192,457	8,128,574
Sept.	12,812,018	8,492,431	7,896,421
Oct.	12,427,553	8,417,694	7,421,620
Nov.	11,851,380	8,830,386	7,116,200
Dec.	11,751,952	9,119,032	

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, Dec. 1	505,206.81
Runs from wells	323,094.91
Other receipts	57,475.69
Regular deliveries	313,125.70
Other deliveries	61,142.69

The amount of Illinois oil run by the Tide Water Pipe Co. in November was 23,785.36 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

	Runs	Deliveries
1932—		
November	346,880.27	333,351.21
1931—		
January	468,429.04	669,573.19
February	429,284.54	461,262.81
March	434,635.23	356,663.26
April	421,814.98	382,532.61
May	433,231.80	322,511.56
June	510,805.78	320,258.11
July	520,009.38	289,219.95
August	476,623.56	393,231.96
September	492,183.83	323,012.50
October	498,124.13	325,834.95
November	470,302.63	281,258.48
December	515,771.28	306,623.19
1932—		
January	500,177.12	246,634.16
February	482,561.50	186,010.30
March	565,538.70	270,617.75
April	461,920.92	285,817.96
May	521,884.64	279,859.88
June	501,873.26	263,702.70
July	466,635.89	284,537.18
August	476,095.53	307,325.89
September	436,529.00	329,594.30
October	322,630.67	352,626.34

Tide Water Pipe Co., Ltd., also delivered in November 93,067.78 bbls. Oklahoma oil.

Average Daily Imports of Crude and Refined Oil at Principal United States Ports

Average barrels per day in 1931-32—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
November	48,033	23,800	51,667	28,600	12,967	170,067	2,933	10,833	3,033	1,567	19,166	189,233
December	20,258	16,866	121,807	31,645	34,258	224,774	1,968	4,355	.....	.....	6,323	231,097
1932—												
January	19,161	8,161	104,065	24,194	34,903	190,484	4,871	7,226	2,096	1,484	15,677	206,161
February	32,483	16,517	128,483	28,862	34,552	240,897	2,034	5,207	4,310	1,379	12,930	253,827
March	25,806	19,516	167,806	38,677	48,129	299,935	5,936	39,774	.....	1,516	47,226	338,161
April	37,167	18,467	158,233	38,733	39,400	292,000	6,767	44,600	3,167	3,233	54,867	346,867
May	31,161	2,065	170,226	50,774	14,935	269,161	903	710	4,194	1,516	7,323	276,484
June	30,900	11,700	199,300	22,733	29,900	294,533	.....	.....	12,867	.....	12,867	307,400
July	2,613	2,161	82,968	14,935	2,129	84,806	.....	.....	.....	.....	.....	84,806
August	3,323	2,161	72,674	25,613	2,098	105,871	.....	.....	.....	.....	.....	105,871
September	5,100	2,200	57,900	12,167	10,066	87,433	.....	.....	.....	.....	.....	87,433
October	14,033	.....	72,193	30,645	7,129	124,000	.....	.....	.....	.....	2,000	126,000

Average Daily Receipts of California Crude and Refined Oil at Atlantic and Gulf Ports

Average barrels per day in 1931-32—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
November	1,000	.....	22,800	11,667	.....	35,367	.....	.....	.....	.....	3,366	38,733
December	3,161	.....	23,484	4,839	6,032	40,516	.....	.....	.....	.....	7,742	48,258
1932—												
January	3,871	1,710	14,483	3,774	5,710	29,548	.....	.....	.....	.....	.....	29,548
February	3,069	.....	9,103	4,862	.....	17,034	.....	.....	.....	.....	2,483	19,517
March	1,516	.....	6,065	.....	.....	7,581	.....	.....	.....	.....	.....	7,581
April	3,566	.....	19,333	3,867	4,833	31,533	.....	.....	.....	.....	.....	31,533
May	2,161	.....	15,226	13,774	3,871	40,032	.....	.....	.....	.....	.....	40,032
June	2,500	.....	17,333	3,933	833	24,600	.....	.....	.....	.....	.....	24,600
July	2,323	.....	22,226	5,677	5,935	42,161	.....	.....	.....	.....	.....	42,161
August	4,452	.....	22,484	7,548	7,677	42,161	.....	.....	.....	.....	.....	42,161
September	2,966	.....	5,000	11,633	7,967	27,566	.....	.....	.....	.....	.....	27,566
October	2,387	1,226	14,452	9,355	9,193	36,613	.....	.....	.....	.....	.....	36,613

Gross Production of Crude Oil in the United States for 12 Months

(In Barrels of 42 Gallons)

1931—		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
November:	Month	14,907,700	16,420,730	28,860,561	3,131,070	1,130,700	1,851,577	2,706,390	3,629,000	72,748,328
	Daily average	499,923	547,691	962,018	104,389	37,690	61,719	90,213	121,300	2,424,946
December:	Month	15,560,984	16,598,299	27,767,651	3,198,642	1,082,148	1,971,817	2,816,759	3,645,000	72,641,300
	Daily average	501,967	535,429	903,860	103,182	34,908	63,607	90,863	117,581	2,343,396
1932—										
January:	Month	15,532,141	15,664,149	26,409,628	3,170,587	1,101,616	1,792,398	2,444,164	3,566,000	67,680,693
	Daily average	501,037	440,779	851,930	102,277	35,536	57,819	78,844	115,032	2,182,255
February:	Month	14,616,862	11,596,196	23,856,575	2,838,529	1,008,662	1,617,087	2,420,224	3,294,000	61,468,279
	Daily average	564,620	407,110	822,703	97,891	34,778	55,762	83,456	113,586	2,119,255
March:	Month	15,576,915	12,998,796	26,162,647	3,042,929	1,062,897	1,702,145	2,617,392	3,553,000	66,716,721
	Daily average	502,449	419,316	843,956	98,159	34,287	54,943	84,432	114,613	2,152,152
April:	Month	15,534,444	13,718,520	26,362,651	2,974,030	1,048,530	1,858,957	2,525,040	3,684,000	66,696,872
	Daily average	517,481	423,934	876,742	99,134	34,984	61,965	84,168	122,800	2,222,299
May:	Month	15,575,741	13,169,420	27,328,472	3,038,930	1,064,602	2,012,701	2,600,683	3,809,000	68,599,549
	Daily average	502,443	424,820	881,564	98,030	34,342	64,926	83,893	122,871	2,212,889
June:	Month	14,118,970	12,757,230	26,161,092	2,837,179	1,032,970	1,857,432	2,416,680	3,699,000	64,879,554
	Daily average	455,451	425,241	872,036	94,573	34,099	61,914	80,556	123,300	2,162,322
July:	Month	14,627,560	13,036,571	26,946,714	2,906,808	1,060,386	1,933,757	2,554,648	3,640,000	66,706,454
	Daily average	471,856	420,341	869,249	93,768	34,206	62,379	82,408	117,419	2,151,627
August:	Month	14,339,951	12,743,666	26,826,788	3,046,959	1,062,597	1,870,764	2,413,536	3,791,000	66,589,461
	Daily average	478,766	411,086	865,184	98,289	34,267	60,347	77,856	122,290	2,148,047
September:	Month	14,351,140	11,765,580	27,366,515	2,955,750	1,019,250	1,939,161	2,289,300	3,730,000	65,346,696
	Daily average	478,371	392,186	912,217	98,525	33,975	64,305	76,310	124,333	2,178,223
October:	Month	14,527,663	11,916,811	27,215,032	2,861,517	1,019,931	1,963,063	2,364,444	3,535,000	65,396,461
	Daily average	471,860	384,511	877,840	92,307	32,901	63,325	72,724	114,032	2,109,210
Total 12 months		179,949,861	159,638,462	321,258,454	36,003,890	12,684,579	22,361,880	30,059,260	43,585,000	805,440,586